FINAL REPORT

NATCHEZ TRACE PARKWAY AMPHIBIAN AND REPTILE INVENTORY PROJECT

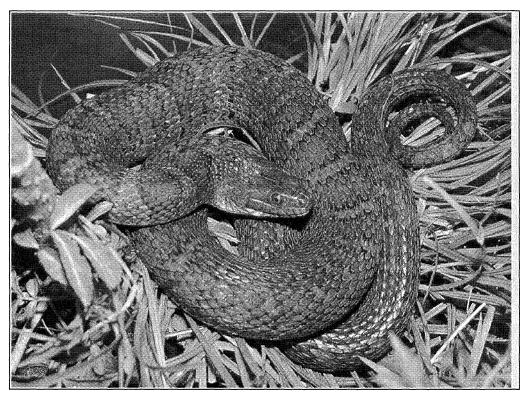


Photo by Nancy Hays

FOR NATIONAL PARK SERVICE NATCHEZ TRACE PARKWAY

APRIL 2001

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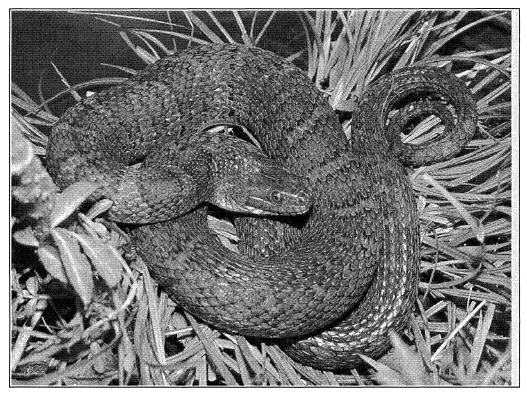


Photo by Nancy Hays

BY
ACCIPITER BIOLOGICAL CONSULTANTS
PO Box 16332
Portal, Arizona 85632

FOR
NATIONAL PARK SERVICE
NATCHEZ TRACE PARKWAY

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Section I Introduction

The National Park Service (NPS) is responsible for the preservation of native wildlife, including amphibian and reptile species, within the 51,410 acre Natchez Trace Parkway in accordance with the 1916 NPS Organic Act, as amended and this direction is re-enforced through both NPS policy and guidelines affecting natural resource management.

Recent data shows that reptiles and amphibians are important, perhaps critical, components of terrestrial and aquatic ecosystems. Both groups are considered to be excellent indicator species of environmental degradation, amphibians because of their complex life cycle and permeable skin and reptiles because of their frequent position as the top carnivores in the food chain (Gibbons 1988). These facts have led to an increasing recognition of the need for collecting better data on the biodiversity and ecology of amphibians and reptiles by NPS managers (Scott and Seigel 1992).

Currently, NPS managers at the Natchez Trace Parkway possess neither a comprehensive baseline inventory nor the information upon which to base monitoring of the Parkway's amphibian and reptile species utilizing park lands and waters. In recent years, the shift to protecting biodiversity through the preservation of functional ecosystems, has made reliable inventory and monitoring programs of critical importance to NPS management. Without detailed information on the distribution, habitat requirements and relative abundance of native amphibian and reptile species, resource managers may only preserve that portion of the fauna which is highly visible or economically important (Bogan, *et al*, 1988). For these reasons, Accipiter Biological Consultants were contracted by the NPS to design and develop a park-wide inventory of reptile and amphibian species currently occurring at the Parkway.

Section II Inventory Goals and Objectives

The Natchez Trace Parkway Amphibian and Reptile Inventory Project constitutes applied research designed to provide park management with the following:

- Goal 1: Baseline inventory documenting the current composition and distribution of amphibian and reptile species at the Natchez Trace Parkway.
- Objective 1A: Develop amphibian and reptile taxa-specific estimates of species richness and species-specific estimates of relative abundance for the Natchez Trace Parkway motor road corridor at the park-wide and physiographic region levels.
- Goal 2: Secure initial sample information on the habitat associations of Natchez Trace Parkway amphibian and reptile species to provide the basis for future monitoring to identify potential change from current resource conditions.

The sample stratification of the 300 plots located in January of 1999 proportions the number of sampling points within each physiographic region to the relative length of the Parkway traversing it with at least two replicate sites in each major physiographic region.

The sampling scheme for this approach is as follows; A plot center point was established and marked by driving a 24" piece of reinforcement bar 18" into the ground and labeling the point with an aluminum tag giving the point number. The nearest tree is marked by two layers of pink forestry flagging to draw researchers to the center point. The plot shall consist of a path from the nearest location on the Parkway to a plot 50 meters in radius from the center point. The plots were sampled using the methods listed above.

Four entire samplings have been done at the sites, one during April and May 1999, June, 1999, April and May 2000 and June 2000. The results of these samplings appear in Appendix A of this progress report. No less than four samplings were attempted at each site during the course of this study.

Minnow Traps

Minnow traps are an effective means of capturing aquatic amphibians and reptiles, especially tadpoles, salamanders, salamander larvae and aquatic snakes. They can be set in most aquatic situations, but appear to be most effective in ponds or swamps with shallow waters. Traps are set near the shoreline, in water deep enough to at least cover the funnel openings. The traps are set from 5-10 meters apart and are checked daily.

The sample stratification of the 66 arrays proportion the number of sampling points within each physiographic region to the relative length of the Parkway traversing it with at least two replicate sites in each physiographic region. Attempts were made to replicate the various aquatic habitats (ponds, swamps and streams) within a physiographic region. This was not always possible due to lack of water depth at some sites, thievery of traps (a serious problem in areas heavily fished) and lack of one form or another of these habitats within a region. Water depths at the various individual sites varied widely with many sites drying up previous to the June samplings.

The sampling scheme for this approach is as follows; Arrays are set up as described above and checked for a four day period with a total of no less than 192 trap hours at any site during a sampling period. During April and May of 1999 all sites were sampled. All sites with adequate water levels were sampled again during June 1999, April and May, 2000 and June 2000 with results of these surveys being found in Appendix A of this report. All sites were sampled, if possible, no less than four times during the course of this study.

Turtle Trapping

Many species of turtles cannot be effectively sampled by hand collecting. Consequently, an active live trapping program was established in several aquatic habitats on Parkway waters to adequately sample these reptiles. Lack of aquatic habitats with the necessary depth of water (at

least 2 ½ feet deep) and the preference of NPS resource managers to not leave turtle traps unattended for any long length of time limited the use of this sampling approach. Thievery, again, was a limiting factor in utilizing this methodology.

Over the area of the Parkway, some 12 sites were identified for the use of turtle traps. Not all physiographic regions are represented in this group because of the above listed factors.

This method consists of setting nylon mesh hoop-type turtle traps in appropriate habitats. The traps are baited with sardines or fish flavored cat food and are checked hourly while set. Even with these constraints, a trap was lost to thievery at a pond which showed signs of use by fishermen.

Three of the 12 sites were sampled during April and May 1999 with the remaining sites sampled during June 1999. All were sampled again during April and May of 2000 and in June 2000. The results of these surveys may be found in Appendix A of this report. All identified sites were sampled no less than four times during the course of this study providing water levels permitted sampling.

Coverboards (Artificial Shelters)

One of the major disadvantages of minnow, turtle and other "active" traps is that they must be set and monitored on a continual basis. An alternative method of inventorying herpetological communities involves the use of artificial shelters established in systematic arrays in various habitats. This method was originally developed by H. S. Fitch in 1975 and has been utilized extensively to sample reptile and amphibian populations nationwide in a variety of habitats. The major advantages of this approach are that they require no maintenance and they can be checked whenever time permits. These shelters should be very effective in sampling salamanders, lizards, snakes and frogs.

The sampling stratification for this approach in this study consists of 65 sites identified in January 1999 and set up during April and May 1999. At that time, series of coverboard arrays were established in each of the physiographic regions traversed by the Parkway, with at least two replicate plots per habitat. In the larger (over 50 miles long) regions a third plot per habitat was installed with one plot in the southern, one in the central and one in the northern section of the region for each applicable habitat.

The sampling scheme utilized consists of the following; Arrays of coverboards consisting of .66 meter by 1.33 meters sections of exterior plywood were established and set up. Each array consists of 24 boards and was arranged randomly through the habitat block. All were sampled during May 1999, in June and November 1999, in April and May of 2000 and in June 2000 with results appearing in Appendix A of this report. Realistically, arrays should be sampled at least a month after they are set up to allow the boards to age and to adequately compact the vegetation under them for easier visibility of reptiles and amphibians utilizing the shelters. This being the case, results were very spotty for the first sampling, but numbers increased during subsequent visits. During the course of this study each array was checked no less than ten times.

Frog Breeding Surveys

The fact that anuran amphibians congregate for breeding allows for highly effective inventories of these species. These surveys involve the systematic survey of major aquatic habitats during the primary breeding seasons for these species in early spring and early summer.

Sites established under this approach are surveyed by spot lighting at night and by use of an automated data collection technique consisting of using a programmable timer combined with a tape recorder to record frog calls and choruses. The recordings are then taken back to the home station for analysis of calling species.

Some thirty sites have been identified for use of this approach and many were sampled during April and May 1999. The remainder were sampled during June and November 1999 and all were sampled again in April and May 2000 and in June 2000. Due to the narrow nature of the Parkway, it is difficult to place the recorders away from traffic and human sounds. This is affecting the usability of the tapes. The results of the sampling sessions have been fully analyzed and the results appear in Appendix A of this report.

Road Surveys

Many amphibians and reptiles routinely cross roads during their daily activities and investigators have found this approach to be the most effective method of sampling many terrestrial snakes, lizards, turtles, frogs and toads, as well as many semi-aquatic snakes. This approach has been used to successfully census and monitor amphibians and reptiles throughout the country and provides a transferable approach for use at the Parkway.

For purposes of this study, 424 transects were established for road riding. This consists of one transect for each completed mile of the Parkway. The area between milepost 6 and milepost 7, therefore, would be transect #0060 for this investigation. This form of sample stratification serves two purposes; first, it proportions the number of sampling points within each physiographic region to the relative length of the Parkway traversing it and it assures that all habitats adjacent to the Parkway are sampled.

The sampling scheme for this approach consists of driving at slower speeds (10-25 miles per hour) and observing the amphibians and reptiles crossing or otherwise utilizing the roadway. All individuals captured are processed as discussed later in this report. Many individuals, especially lizards, are impossible, or at least hard to capture, so only positively identified specimens are recorded. Also recorded is the habitat adjacent to where the animal was found on the roadway.

During April and May 1999 all transects were sampled four times, three during the day and one at night. During June 1999 all transects were also sampled four times, three during the day and one at night. All transects were also sampled during the day, one time, during November, 1999, four times, three during the day and one at night during April and May 2000 and four times, three during the day and one at night during June 2000 and one time during

November 2000. The results of these samplings are available in Appendix A of this report. During the course of this study all transects were sampled at least 16 times.

Drift Fences

Drift fences are frequently the most productive method of inventorying herpetological communities. Equipped with either pitfall traps, funnel traps or both, studies show that the productivity of drift fences is significantly higher than hand-captures (Gibbons and Semlitsch 1981).

During April and May 1999 35 drift fence arrays were established along the Natchez Trace Parkway. These arrays were set up to sample each terrestrial habitat identified in each of the physiographic regions. Since these traps must be monitored constantly, the traps were not opened during the April/May 1999 time frame. These arrays were run during the summer and winter of 1999 and spring and summer of 2000 and the winter of 2000. Results of the surveys appear in Appendix A of this report.

These arrays were developed using 10 inch aluminum flashing for drift fence material with plastic 5-gallon pails embedded in the ground so that the top was flush with the ground surface being used for pitfalls. Pitfall traps were installed such that lids could be affixed to the pails during times when the traps could not be monitored. Aluminum screen funnel traps and plastic funnel traps used by commercial snake breeders were used to augment the trapping effort at the drift fence sites.

Section IV Processing of Individuals

All reptiles and amphibians captured have been identified to species (many to identifiable subspecies), sexed, measured for length (snout to vent length is becoming the standard for measuring snakes, lizards and amphibians, while carapace length is used for turtles), weighed and checked for reproductive condition. All lengths are recorded in millimeters while weights are recorded in grams. Sexing of snakes is done by probing which has a 96% reliability rate. Lizards are sometimes harder to sex, but anal pores and display markings of males are helpful in this respect. Turtles are sexed by a combination of indented plastron of most male individuals and location of the vent in relation to the end of the shell. Frogs and toads are hard to sex with any degree of reliability outside the breeding season.

Section V Analysis of Survey Methodology Efficiency

Table 1 summarizes the overall efficiency of the seven field methodologies utilized in this survey as well as the efficiency of all seven combined. An efficiency quotient has been established to enumerate this efficiency and is determined by dividing the number of species inventoried by a certain methodology by 106, the total number of species known to occur in the general area of the Natchez Trace Parkway. This would give a numerical value of the likelihood of a given methodology to accomplish a total inventory given the conditions available on the Natchez Trace Parkway during the survey.

Table 1 Field Methodology Efficiency Analysis

Methodology	No. of Species (n)	No. of Individuals	Efficiency Quotient (n/106)
General Herpetological	27	127	.255
Collecting			
Minnow Traps	14	253	.132
Turtle Trapping	7	66	.066
Coverboards (Artificial	20	73	.189
Shelters)			
Frog Breeding Surveys	11	110+	.104
Road Surveys	52	408	.491
Drift Fences	13	87	.123
Combined Seven	67	1124 +	.632
Methodologies			

Table 1 shows very low efficiency quotients for several of the methodologies used in this inventory. This is to be expected as turtle traps, minnow traps, and frog breeding surveys target smaller numbers of species than other methodologies. Each methodology has its own strengths and weaknesses as an inventory devise. These and other potential biases will be discussed in the following paragraphs. Weather is a factor affecting the efficiency of all individual field methods, as well as the combination of the seven. Three species, the spotted salamander, marbled salamander and Eastern spadefoot toad, should be common to abundant throughout the Natchez Trace Parkway. Because of an ongoing drought during the two years of field work for this project, not one individual of any of these species was located. They simply burrowed down into the ground to escape the drought until more palatable weather occurs. This brings about another factor affecting field method efficiency; the fossorial (burrowing or under ground living) nature of many reptiles and amphibians. None of the methodologies used can target these species during drought or cold conditions. The researchers involved with this study feel these two factors affected the lack of locating at least twenty four additional species and accounted for low individual totals in at least thirteen more.

General Herpetological Collecting

Also known as hand collecting, this method is proported to provide the largest number of individuals and species based on comparable inventory projects. This was, however not true of this study as indicated in Table 1. Taxa targeted by this methodology include snakes, lizards, frogs, salamanders and turtles. Secretive, fossorial, canopy-dwelling and deep water species would not be adequately inventoried utilizing this technique and would require more specialized searching methods. Factors influencing the efficiency of this method include the amount of time utilized for each plot, number and experience of observers, area of the plot, topography, local weather, season, date and time of day. In this study the first three factors were standardized over the three hundred plots and efforts were made to visit the plots at varying seasons and times of

day over the course of the project. Weather, as indicated previously, had a detrimental affect on potential species richness and numbers of individuals inventoried using this technique.

Minnow Traps

This field method is an effective means of capturing aquatic amphibians and reptiles, especially tadpoles, frogs, salamanders, salamander larvae and aquatic snakes. During the course of this project this method proved very effective for inventorying these groups. Factors affecting the efficiency of this methodology include trap location (must be able to place trap in water over the funnel entrance), local weather, species susceptibility to the traps and thievery. All original locations were acceptable under the first factor at the time they were established. The drought, however, played havoc with sampling during June and November of both years as over 50% of the sites dried up or were too shallow for trapping after the April/May surveys each year.

The nature of this methodology limits its use to target species of an aquatic nature. It cannot be used to monitor terrestrial or arboreal species. It also limits the size of the target organism in that the entrance to the traps is only one inch in diameter. In that respect, large aquatic reptiles and amphibians could not be inventoried in this manner.

Thievery also produced a bias in this study as 32 traps were stolen from the 66 arrays during the course of the study. It is presumed that fishermen and other local inhabitants removed the traps. At least two traps were removed by raccoons and were found nearby. Two others were washed out by flash flooding during spring surveys. All of these losses affected the total number of trap hours at the array until their loss was noted and they were replaced.

Turtle Trapping

Many species of turtles cannot be effectively sampled by hand collecting. Consequently, an active live trapping program was established in several aquatic habitats on Parkway waters to adequately sample these reptiles. This field method targeted aquatic turtles for inventory and they are the only group of species which could be adequately inventoried using this methodology. Of the fourteen species known to inhabit the area of the Natchez Trace Parkway, half of them were trapped using these traps.

Lack of aquatic habitats with the necessary depth of water (at least $2\frac{1}{2}$ feet deep) and the preference of NPS resource managers to not leave turtle traps unattended for any long length of time limited the use of this methodology. Thievery, again was a derisive factor as 25% of the traps set out were stolen.

The size of the mesh in these traps limited the captives to over three inches in diameter. Smaller turtles and aquatic snakes and amphibians could easily swim through the mesh.

Coverboards (Artificial Shelters)

This inventory device can be used in all of the terrestrial habitats of the Natchez Trace Parkway and targets lizards, snakes and terrestrial salamanders and frogs. It has good potential for a wide variety of secretive reptiles and amphibians that normally are found under surface cover. Advantages of this protocol are standard number of cover items of a standard size, limited disturbance to cover items (e.g., logs fall apart with repeated disturbance, natural cover decays and changes character with time) and easy maintenance of cover items. Disadvantages providing bias to the results of a study include the fact that use of a coverboard may vary among species depending on their habits and on the availability of natural cover objects, local weather may adversely affect counts and coverboards may be difficult to relocate in habitats with fast growing vegetation.

The investigators in this study feel that, in most habitats, the Natchez Trace Parkway provides a wealth of natural cover objects ranging from forest duff to logs and rocks. This could significantly reduce use of artificial cover. Weather, again, was a factor. The ongoing drought in the study area produced little rain to provide for the warm, moist microhabitats which attract many species to coverboards. Many species and individuals simply moved underground to wait out the drought. Vegetation hiding the coverboards was not a factor in this inventory because all arrays were flagged with forester's tape and were relatively easy to relocate. Thievery was a factor with some 570 of the 1776 coverboards placed disappearing from the sites and about 175 more damaged by mowers, agricultural machinery and prescribed burning. At the request of Gary Mason of the NPS, damaged and stolen coverboards were not replaced. This would provide a definite bias to the results using this methodology.

Frog Breeding Surveys

These surveys involve the systematic survey of major aquatic habitats during the primary breeding seasons for these species in early spring, early summer and winter. The list of target species is limited to frogs and toads. This methodology proved very successful in adding a number of anuran species to our inventory list which were not picked up by any other method. Advantages include being able to inventory breeding frogs and toads in areas while the observers were elsewhere. Disadvantages include the fact that due to the narrow nature of the Parkway, it is difficult to place the recorders away from traffic and human sounds. This is affecting the usability of some of the tapes. Also, because of the ongoing drought several species simply did not breed during the study, preferring to aestivate under ground until reliable rains come. These species could not be adequately inventoried using this technique.

Road Surveys

Many amphibians and reptiles routinely cross roads during their daily activities and investigators have found this approach to be the most effective method of sampling many terrestrial snakes, lizards, turtles, frogs and toads, as well as many semi-aquatic snakes. Overall, this inventory device proved to be the most efficient methodology used in the course of this project. Road Surveys are most effective for surveying highly mobile reptiles and amphibians as

they cross a road. In general, these animals are migrating to or from a breeding site or are highly mobile while foraging. Because roads are a relatively neutral part of a reptile or amphibian's habitat, road surveys provide a reasonable estimate of the general composition of assemblages of these animals.

Bias is presented by a number of limitations of this methodology. Sedentary species with restricted home ranges may not be sampled in their usual proportions in the assemblage, because they are quickly eliminated from the roads. This would apply to many of the small plethodonid salamanders species which should have been found on the Parkway. Small immobile species are harder to see from a moving vehicle than are large active species. Habitat specialists, especially arboreal or totally aquatic species would not be adequately inventoried. Because this method requires a road and car, habitats in primary forests and habitats between roads cannot be surveyed with this technique. Since warm, rainy or humid days provide optimal conditions for application of this technique, once again, the dry weather induced a bias into the use of this methodology.

Drift Fences

Drift fences intercept reptiles and amphibians moving on the surface of the ground and redirect them into a pitfall or funnel traps. Traps without fences act in a similar manner, but individual traps intercept only a few centimeters of ground versus several meters for a drift fence. These arrays target terrestrial amphibians, turtles, lizards and snakes and, in general, are sufficient to provide a comparison of relative abundance among an assemblage of these species. There are, however, several biases which would affect the efficiency of this methodology. Biases for trap avoidance or trap attractiveness must be taken into account. Funnel and pitfall traps limit the size of organism able to be caught in them. Most funnel traps have entrances of one inch or less, thus eliminating snakes or animals of greater girth from the inventory. Large snakes are able to easily escape pitfall traps, as are anurans that are strong jumpers or climbers (e.g., Acris, Hyla and most Rana). Time spent on this methodology also limited the effectiveness of this device. NPS personnel felt (and rightly so) that animals should not have to spend any more time than necessary in the traps. Therefore, these arrays were run only when researchers could be in the near vicinity working on other aspects of the project. Vogt and Hine recommend utilizing this technique most opportunistically after rains for best results. Again, the weather inserted a bias with the drought which was taking place during the study. At least eleven species of terrestrial salamanders and two species of terrestrial anurans may have been missed by this methodology because the were simply burrowed in the ground during the time of the study and were not active on the surface. They quite possibly would have been inventoried during a more "normal" year.

Seven Combined Methodologies

The seven combined field techniques used in the course of this study located 63.2% of the possible species to be found in the area of the Natchez Trace Parkway. Weather was the predominant factor in this low percentage. The dry weather affected the efficiency of each of the seven methodologies. During a year of average rainfall in the area of the Parkway many of the fossorial species should be accounted for by one or more field technique when they come up to

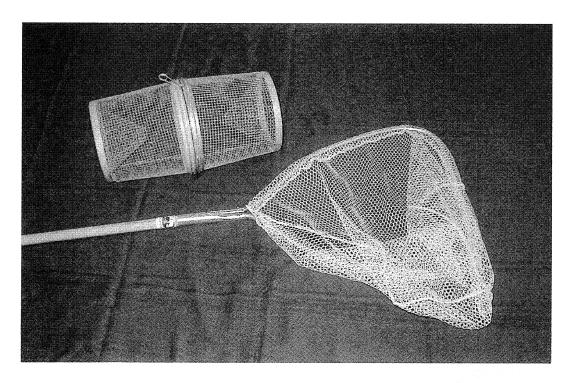


Fig. 1 Gee minnow trap and dipnet utilized for inventorying aquatic nerps

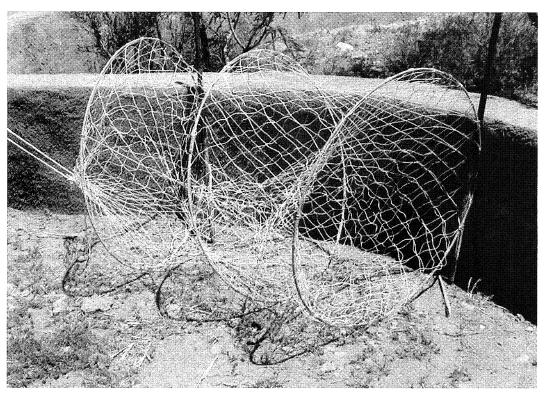
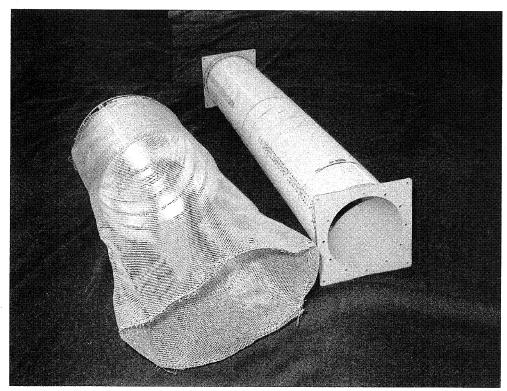
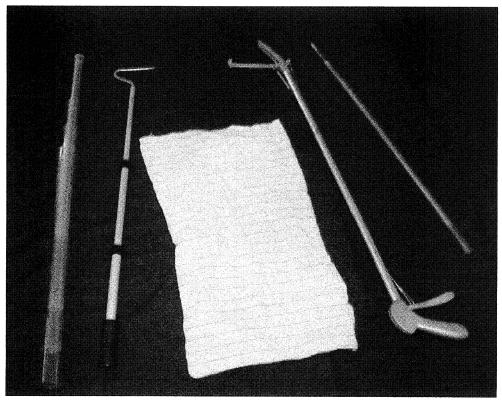


Fig. 2 Turtle trap for inventorying aquatic turtles

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 $Fig. \ 3 \ \ Snake \ traps \ utilized \ to \ supplement \ pitfalls \ at \ drift \ fence \ sites$



rig. 4 kestraining tubes, snake nook, bag, and tongs for working with snakes



Fig. 5 Checking a coverboard



Fig. 6 Weighing a Corn Snake

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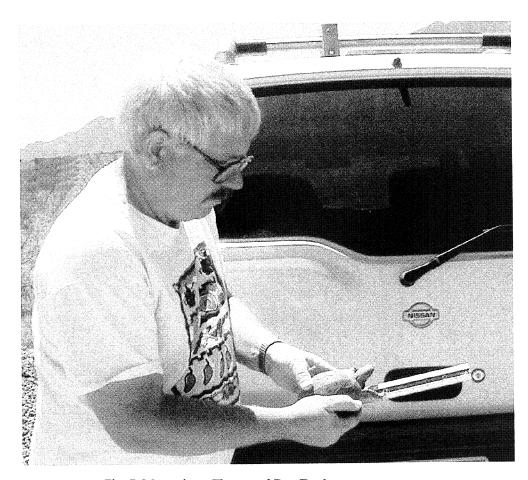


Fig. 7 Measuring a Three-toed Box Turtle

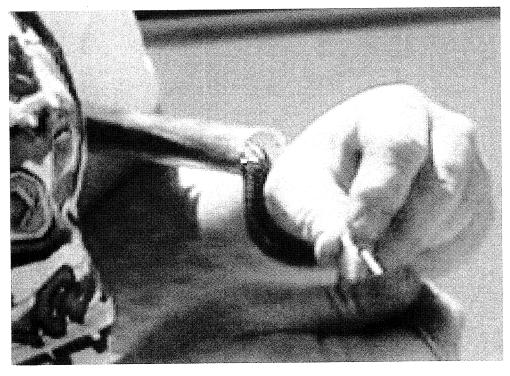


Fig. 8 Probing a snake to determine sex.

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breed or after rain events. They simply cannot be inventoried when they are under ground. According to Vogt and Hine 80% of the species is to be expected in the southeastern United States using the selection of field methodologies involved in this study.

Section VI Analysis of Species Richness and Relative Abundance

The following tables and text analyze the species richness and relative abundance of the reptiles and amphibians found on the Natchez Trace Parkway in four contexts; parkwide, ecosystem province level, physiographic region level and at the habitat level. The numbers in the tables reflect the relative abundance of that species compared to other species within that assemblage. This number is acquired by dividing the number of individuals found by the number of sampling points located within that geographic area or habitat (Jones, 1988).

Table 2 Relative Abundance Parkwide

Species	Scientific Name	Relative Abundance Factor
Red-eared Slider	Chrysemys scripta elegans	0.129
Southern Leopard Frog	Rana utricularia	0.109
Southern Cricket Frog	Acris gryllus	0.083
Green Frog	Rana clamitans melanota	0.083
Bronze Frog	Rana clamitans clamitans	0.082
Three-toed Box Turtle	Terrapene carolina triunguis	0.061
Ground Skink	Scincella lateralis	0.054
Southern Black Racer	Coluber constrictor priapus	0.040
Northern Cricket Frog	Acris crepitans	0.040
Red-spotted Newt	Notophthalmus viridescens	0.038
Bullfrog	Rana catesbeiana	0.036
Five-lined Skink	Eumeces fasciatus	0.035
Eastern Box Turtle	Terrapene carolina carolina	0.034
Corn Snake	Elaphe guttata guttata	0.026
Speckled Kingsnake	Lampropeltis getulus holbrooki	0.024
Eastern Fence Lizard	Sceloporus undulatus	0.024
Green Anole	Anolis carolinensis	0.023
Slimy Salamander	Plethodon glutinosus	0.022
Rough Green Snake	Opheodrys aestivus	0.019
Midland Water Snake	Natrix sipedon pleuralis	0.019
Bird-voiced Tree Frog	Hyla avivoca	0.019
Smooth Softshell Turtle	Trionyx muticus	0.018
Gray Tree Frog Complex	Hyla versicolor and Hyla chrysoscelis	0.018
Southern Copperhead	Agkistrodon contortrix contortrix	0.017
Diamond-backed Water Snake	Natrix rhombifera	0.016

 Table 2 Relative Abundance Parkwide (Continued)

Species	Scientific Name	Relative Abundance Factor
Eastern Mud Turtle	Kinosternon subrubrum	0.015
Western Cottonmouth	Agkistrodon piscivorus leucostoma	0.014
Northern Black Racer	Coluber constrictor constrictor	0.014
Broad-headed Skink	Eumeces laticeps	0.014
Chicken Turtle	Deirochelys reticularia	0.013
American Toad	Bufo americanus	0.012
Yellow-bellied Water Snake	Natrix erythrogaster flavigaster	0.011
Spring Peeper	Hyla crucifer	0.010
Gray Rat Snake	Elaphe obsoleta spiloides	0.010
Black Kingsnake	Lampropeltis getulus niger	0.010
Common Snapping Turtle	Chelydra serpentina	0.009
Squirrel Tree Frog	Hyla squirella	0.008
Southern Painted Turtle	Chrysemys picta dorsalis	0.007
Southeastern Five-lined Skink	Eumeces inexpectatus	0.007
Mud Snake	Farancia abacura	0.007
Northern Water Snake	Natrix sipedon sipedon	0.006
Eastern Garter Snake	Thamnophis sirtalis sirtalis	0.005
Western Lesser Siren	Siren intermedia nettingi	0.004
Eastern Hognose Snake	Heterodon platyrhinos	0.004
Stinkpot	Sternotherus odoratus	0.004
Eastern Ribbon Snake	Thamnophis sauritus	0.004
Eastern Narrow-mouthed Toad	Gastrophryne carolinensis	0.004
American Alligator	Alligator mississippiensis	0.004
Fowler's Toad	Bufo woodhousei fowleri	0.002
Eastern Worm Snake	Carphaphis amoenus	0.002
Northern Red Salamander	Pseudotriton ruber ruber	0.001
Rainbow Snake	Farancia erytrogramma	0.001
Alligator Snapping Turtle	Macroclemys temmincki	0.001
Eastern Milk Snake	Lampropeltis triangulum triangulum	0.001
Yellow-bellied Slider	Chrysemys scripta scripta	0.001
Green Tree Frog	Hyla cinerea	0.001
Mississippi Map Turtle	Graptemys kohni	0.001
Canebrake Rattlesnake	Crotalus horridus atricaudatus	0.001
Ringneck Snake	Diadophis punctatus	0.001
Upland Chorus Frog	Pseudacris triseriata feriarum	0.001
Black Rat Snake	Elaphe obsoleta obsoleta	0.001
Mole Kingsnake	Lampropeltis calligaster rhombomaculata	0.001

 Table 2 Relative Abundance Parkwide (Continued)

Species	Scientific Name	Relative Abundance Factor
Mole Salamander	Ambystoma talpoideum	0.001
Slider	Chrysemys concinna	0.001
Smooth Earth Snake	Virginia valeriae	0.001
Razor-backed Musk Turtle	Sternotherus carinatus	0.001
Three-toed Amphiuma	Amphiuma tridactylum	0.001

Table 3 Species Richness Analysis

Level of Analysis	Number of Species
Parkwide	67
Ecosystem Province	
Lower Mississippi Riverine Forest Province	27
Outer Coastal Plain Mixed Forest Province	31
Southeastern Mixed Forest Province	56
Eastern Broadleaf Forest (Continental) Province	35
Physiographic Region	
Mississippi Alluvial Plain	27
Loess Hills	31
Long Leaf Pine Hills	20
Jackson Prairie	18
North Central Mississippi Hills	46
Flatwoods	9
Black Prairie	25
Pontotoc Hills	16
Fall Line Hills	30
Tennessee Valley	7
West Tennessee Plain	29
Nashville Basin	15
General Habitat	
Stream	31
Lake	27
Swamp	21

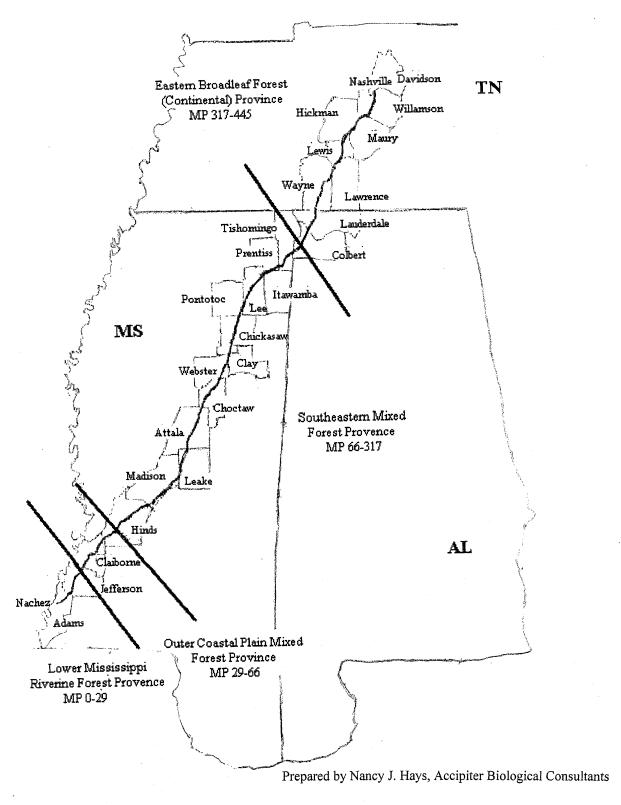


Figure 1 The Four Ecosystem Provinces Traversed by the Natchez Trace Parkway

Table 3 Species Richness Analysis (Continued)

Level of Analysis	Number of Specie
General Habitat	
Riparian Woodland	28
Bottomland Hardwood Woodland	15
Upland Hardwood Woodland	35
Upland Pine Woodland	11
Mixed Hardwood-Pine Woodland	33
Red Cedar Woodland	1
Prairie	19
Fallow Agricultural Field	5
Active Agricultural Field	3

As Tables 2 and 3 indicate, 67 reptile and amphibian taxa were located on the Natchez Trace Parkway during 1999-2000. Species richness in the various ecosystem provinces and physiographic regions seem to reflect a correlation between the number of species found and the number of miles (and thus the number of sampling points) each unit traverses the Parkway. Species richness in the various habitats also reflected a correlation between the number of species found and the number of sampling points within that habitat.

Table 4 Relative Abundance of Reptiles and Amphibians Within the Four Ecosystem Provinces

Lower Mississippi Riverine Forest Province Species	Relative Abundance Factor	Outer Coastal Plain Mixed Forest Province Species	Relative Abundance Factor
	<u> </u>		
Bronze Frog	0.525	Red-eared Slider	0.253
Green Anole	0.130	Southern Leopard Frog	0.171
Three-toed Box Turtle	0.109	Bronze Frog	0.098
Speckled Kingsnake	0.093	Ground Skink	0.095
Ground Skink	0.074	Three-toed Box Turtle	0.095
Eastern Fence Lizard	0.056	Southern Black Racer	0.081
Five-lined Skink	0.056	Corn Snake	0.068
Southern Black Racer	0.056	Five-lined Skink	0.068
Midland Water Snake	0.050	Green Anole	0.068
American Toad	0.049	Bird-voiced Tree Frog	0.049
Bullfrog	0.033	Southern Copperhead	0.041
Southern Cricket Frog	0.033	Western Cottonmouth	0.038
Southern Leopard Frog	0.033	Northern Cricket Frog	0.037
Broad-headed Skink	0.019	Squirrel Tree Frog	0.037

Table 4 Relative Abundance of Reptiles and Amphibians Within the Four Ecosystem Provinces (Continued)

Lower Mississippi Riverine Forest Province Species	Relative Abundance Factor	Outer Coastal Plain Mixed Forest Province Species	Relative Abundance Factor
Corn Snake	0.019	Eastern Fence Lizard	0.027
Eastern Hognose Snake	0.019	Midland Water Snake	0.025
Gray Rat Snake	0.019	Bullfrog	0.024
Rough Green Snake	0.019	Southern Cricket Frog	0.024
Chicken Turtle	0.018	Broad-headed Skink	0.014
Common Snapping Turtle	0.018	Eastern Ribbon Snake	0.014
Mississippi Map Turtle	0.018	Gray Rat Snake	0.014
Red-eared Slider	0.018	Mud Snake	0.014
Southern Painted Turtle	0.018	Northern Black Racer	0.014
Smooth Softshell Turtle	0.018	Speckled Kingsnake	0.014
Western Cottonmouth	0.017	Slimy Salamander	0.013
Bird-voiced Tree Frog	0.016	Eastern Mud Turtle	0.013
Green Tree Frog	0.016	Southern Painted Turtle	0.013
		Alligator Snapping Turtle	0.013
		Stinkpot	0.013
		Diamond-backed Water Snake	0.013
		Spring Peeper	0.012

Southeastern Mixed Forest Province Species	Relative Eastern Broadleaf Forest Abundance (Continental) Province Factor Species		Relative Abundance Factor
Red-eared Slider	0.188	Eastern Box Turtle	0.108
Southern Cricket Frog	0.138	Green Frog	0.104
Southern Leopard Frog	0.132	Northern Cricket Frog	0.066
Green Frog	0.094	Southern Leopard Frog	0.062
Three-toed Box Turtle	0.083	Bullfrog	0.046
Red-spotted Newt	0.073	Eastern Fence Lizard	0.046
Bronze Frog	0.066	Northern Black Racer	0.041
Ground Skink	0.065	Gray Tree Frog	0.035
Southern Black Racer	0.053	Black Kingsnake	0.029
Five-lined Skink	0.035	Slimy Salamander	0.027
Bullfrog	0.034	Corn Snake	0.025
Northern Cricket Frog	0.032	Ground Skink	0.025
Rough Green Snake	0.031	Five-lined Skink	0.021
Speckled Kingsnake	0.031	Northern Water Snake	0.020

Table 4 Relative Abundance of Reptiles and Amphibians Within the Four Ecosystem Provinces (Continued)

Southeastern Mixed Forest Province Species	Relative Abundance	Eastern Broadleaf Forest (Continental) Province	Relative Abundance
	Factor	Species	Factor
Smooth Softshell Turtle	0.030	Midland Water Snake	0.012
Diamond-backed Water Snake	0.026	Broad-headed Skink	0.008
Eastern Mud Turtle	0.026	Fowler's Toad	0.008
Bird-voiced Tree Frog	0.025	Common Snapping Turtle	0.008
Slimy Salamander	0.024	Eastern Garter Snake	0.008
Corn Snake	0.022	Eastern Worm Snake	0.008
Chicken Turtle	0.022	Red-eared Slider	0.008
Southern Copperhead	0.022	Spring Peeper	0.008
Yellow-bellied Water Snake	0.020	Mole Salamander	0.004
Broad-headed Skink	0.018	Eastern Hognose Snake	0.004
Midland Water Snake	0.018	Black Rat Snake	0.004
Western Cottonmouth	0.018	Eastern Ribbon Snake	0.004
Green Anole	0.016	Mole Kingsnake	0.004
Gray Tree Frog	0.015	Rough Green Snake	0.004
American Toad	0.013	Southern Copperhead	0.004
Gray Rat Snake	0.013	Bronze Frog	0.004
Common Snapping Turtle	0.011	Southeastern Five-lined Skink	0.004
Mud Snake	0.011	Eastern Milk Snake	0.004
Spring Peeper	0.011	Smooth Earth Snake	0.004
Southeastern Five-lined Skink	0.011	American Toad	0.004
Eastern Fence Lizard	0.009	Western Lesser Siren	0.004
Southern Painted Turtle	0.009		
Eastern Narrow-mouthed Toad	0.008		·
Squirrel Tree Frog	0.008		
American Alligator	0.007		
Western Lesser Siren	0.007		
Eastern Box Turtle	0.004		
Stinkpot	0.004		
Eastern Garter Snake	0.004		
Rainbow Snake	0.002		
Eastern Hognose Snake	0.002		
Slider	0.002		
Northern Black Racer	0.002		
Eastern Ribbon Snake	0.002		
Black Kingsnake	0.002		
Three-toed Amphiuma	0.002		

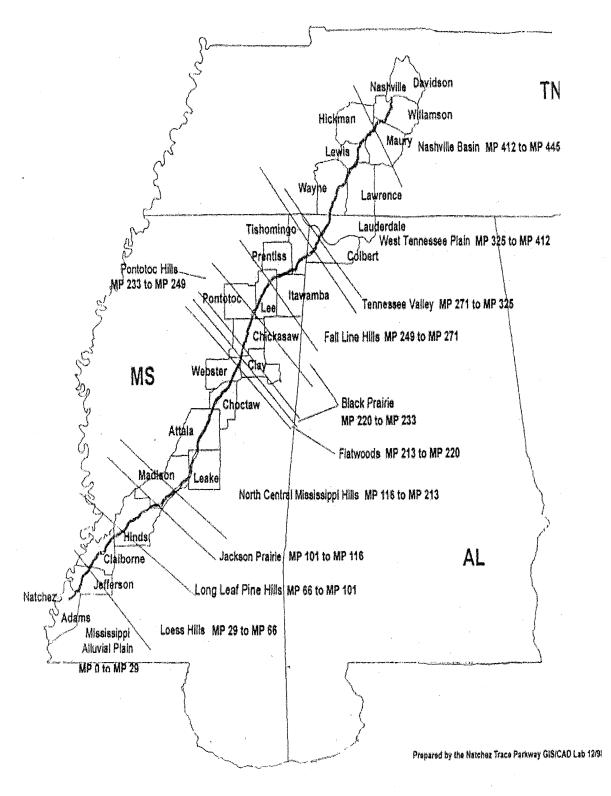


Figure 2 The Twelve Physiographic Regions Traversed by the Natchez Trace Parkway

Table 4 Relative Abundance of Reptiles and Amphibians Within the Four Ecosystem Provinces (Continued)

Southeastern Mixed Forest Province Species	Relative Abundance Factor
Canebrake Rattlesnake	0.002
Upland Chorus Frog	0.002
Northern Red Salamander	0.002
Razor-backed Musk Turtle	0.002
Yellow-bellied Slider	0.002
Ringneck Snake	0.002

The relative abundance of the reptiles and amphibians identified in the twelve physiographic regions transversed by the Natchez Trace Parkway are represented in the columns of Table 5 below as they occur from south to north on the Parkway. Please Note: The Mississippi Alluvial Plain is represented above under the Lower Mississippi Riverine Forest Province and the Loess Hills is represented above under the Outer Coastal Plain Mixed Forest Province. These two regions form 100% of their respective ecosystem provinces and so the species richness and relative abundance factors remain the same.

Table 5 Relative Abundance of Reptiles and Amphibians Within the Physiographic Regions of the Natchez Trace Parkway

Long Leaf Pine Hills Species	Relative Abundance Factor	Jackson Prairie Species	Relative Abundance Factor
Bronze Frog	0.172	Red-eared Slider	0.294
Bullfrog	0.138	Southern Cricket Frog	0.189
Three-toed Box Turtle	0.096	Green Anole	0.125
American Toad	0.086	Ground Skink	0.125
Bird-voiced Tree Frog	0.069	Chicken Turtle	0.089
Green Anole	0.058	Midland Water Snake	0.086
Ground Skink	0.058	Bronze Frog	0.081
Southern Black Racer	0.058	Rough Green Snake	0.067
Speckled Kingsnake	0.058	Diamond-backed Water Snake	0.057
Red-eared Slider	0.056	Broad-headed Skink	0.033
Diamond-backed Water Snake	0.054	Five-lined Skink	0.031
Corn Snake	0.038	Rainbow Snake	0.031
Rough Green Snake	0.038	Southern Black Racer	0.031
Eastern Mud Turtle	0.019	Speckled Kingsnake	0.031
Five-lined Skink	0.019	Smooth Softshell Turtle	0.029

Table 5 Relative Abundance of Reptiles and Amphibians Within the Physiographic Regions of the Natchez Trace Parkway (Continued)

Long Leaf Pine Hills Species	Relative Abundance Factor	Jackson Prairie Species	Relative Abundance Factor
Common Snapping Turtle	0.019	Red-spotted Newt	0.029
Southern Copperhead	0.019	Western Cottonmouth	0.029
Yellow-bellied Water Snake	0.018	Yellow-bellied Water Snake	0.029
Midland Water Snake	0.018		
Western Cottonmouth	0.018		
Yellow-bellied Water Snake	0.018		

North Central Mississippi Hills Species	Relative Abundance Factor	North Central Mississippi Hills Species (Continued)	Relative Abundance Factor
Southern Cricket Frog	0.293	Red-spotted Newt	0.017
Three-toed Box Turtle	0.145	American Alligator	0.011
Red-eared Slider	0.124	Chicken Turtle	0.011
Bronze Frog	0.078	Southern Painted Turtle	0.011
Southern Black Racer	0.078	Stinkpot	0.011
Ground Skink	0.063	Slider	0.006
Bird-voiced Tree Frog	0.044	Yellow-bellied Slider	0.006
Northern Cricket Frog	0.044	Smooth Softshell Turtle	0.006
Green Frog	0.044	Eastern Ribbon Snake	0.006
Rough Green Snake	0.042	Razor-backed Musk Turtle	0.006
Slimy Salamander	0.039	Corn Snake	0.006
Speckled Kingsnake	0.036	Western Lesser Siren	0.006
Western Cottonmouth	0.033	Three-toed Amphiuma	0.006
Gray Tree Frog	0.030	Eastern Garter Snake	0.006
Spring Peeper	0.029	Gray Rat Snake	0.006
Southern Copperhead	0.024	Southern Leopard Frog	0.005
Southeastern Five-lined Skink	0.023	Upland Chorus Frog	0.005
Common Snapping Turtle	0.022	Five-lined Skink	0.001
Eastern Mud Turtle	0.022	Eastern Fence Lizard	0.001
Yellow-bellied Water Snake	0.022		
Bullfrog	0.020		
Eastern Narrow-mouthed Toad	0.020		

0.020

0.019

0.018

0.017

Squirrel Tree Frog

Mud Snake

Broad-headed Skink

Diamond-backed Water Snake

Table 5 Relative Abundance of Reptiles and Amphibians Within the Physiographic Regions of the Natchez Trace Parkway (Continued)

Flatwoods Species	Relative Abundance Factor	Black Prairie Species (Continued)	Relative Abundance Factor
Ground Skink	0.250	Gray Tree Frog	0.012
Three-toed Box Turtle	0.188		
Slimy Salamander	0.111	Pontotoc Hills Species	
Five-lined Skink	0.067		
Red-eared Slider	0.063	Five-lined Skink	0.161
Southern Copperhead	0.063	Corn Snake	0.097
Bronze Frog	0.056	Three-toed Box Turtle	0.097
Yellow-bellied Water Snake	00.56	Ground Skink	0.065
Corn Snake	0.036	Red-eared Slider	0.065
		Southern Black Racer	0.065
Black Prairie Species		Gray Rat Snake	0.032
		Eastern Fence Lizard	0.032
Red-eared Slider	0.425	Mud Snake	0.032
Southern Leopard Frog	0.152	Eastern Box Turtle	0.032
Smooth Softshell Turtle	0.110	Ringneck Snake	0.032
Bronze Frog	0.063	Rough Green Snake	0.032
Gray Rat Snake	0.056	Speckled Kingsnake	0.032
Southern Copperhead	0.056	Diamond-backed Water Snake	0.029
Bullfrog	0.051	Green Frog	0.029
Ground Skink	0.042	Yellow-bellied Water Snake	0.029
Five-lined Skink	0.042		
Southern Black Racer	0.042	Fall Line Hills Species	
Midland Water Snake	0.038		
Slimy Salamander	0.038	Southern Leopard Frog	0.582
Southern Painted Turtle	0.028	Green Frog	0.408
Corn Snake	0.028	Red-spotted Newt	0.319
Three-toed Box Turtle	0.028	Red-eared Slider	0.205
Yellow-bellied Water Snake	0.026	Northern Cricket Frog	0.082
Speckled Kingsnake	0.014	Southern Cricket Frog	0.061
Canebrake Rattlesnake	0.014	Chicken Turtle	0.057
Rough Green Snake	0.014	Five-lined Skink	0.047
Western Cottonmouth	0.014	Smooth Softshell Turtle	0.045
Eastern Hognose Snake	0.014	Broad-headed Skink	0.035
Broad-headed Skink	0.014	Eastern Mud Turtle	0.023
Eastern Garter Snake	0.013	Eastern Fence Lizard	0.023
Diamond-backed Water Snake	0.013	Southern Black Racer	0.023

Table 5 Relative Abundance of Reptiles and Amphibians Within the Physiographic Regions of the Natchez Trace Parkway (Continued)

Fall Line Hills Species (Continued)	Relative Abundance Factor	West Tennessee Plains Species (Continued)	Relative Abundance Factor
Speckled Kingsnake	0.023	Northern Black Racer	0.049
Western Lesser Siren	0.022	Gray Tree Frog	0.040
Midland Water Snake	0.021	Slimy Salamander	0.034
American Toad	0.020	Corn Snake	0.031
Bullfrog	0.020	Black Kingsnake	0.030
Corn Snake	0.012	Northern Water Snake	0.029
Mud Snake	0.012	Midland Water Snake	0.017
Ground Skink	0.012	Broad-headed Skink	0.012
Eastern Box Turtle	0.012	Eastern Garter Snake	0.012
Rough Green Snake	0.012	Five-lined Skink	0.012
Black Kingsnake	0.012	Fowler's Toad	0.011
Northern Black Racer	0.012	Spring Peeper	0.011
American Alligator	0.011	American Toad	0.006
Southeastern Five-lined Skink	0.011	Eastern Ribbon Snake	0.006
Diamond-backed Water Snake	0.011	Mole Salamander	0.006
Northern Red Salamander	0.011	Red-eared Slider	0.006
Gray Tree Frog	0.010	Rough Green Snake	0.006
		Southern Copperhead	0.006
Tennessee Valley Species		Ground Skink	0.006
		Southeastern Five-lined Skink	0.006
Eastern Box Turtle	0.158	Bronze Frog	0.006
Ground Skink	0.158	Common Snapping Turtle	0.006
Northern Black Racer	0.105	Western Lesser Siren	0.006
Eastern Worm Snake	0.053		
Corn Snake	0.053		
Red-eared Slider	0.053		
Slimy Salamander	0.050		
West Tennessee Plains Species			

0.147

0.096

0.074

0.073

0.068

0.049

Green Frog

Bullfrog

Northern Cricket Frog

Southern Leopard Frog

Eastern Fence Lizard

Eastern Box Turtle

Table 5 Relative Abundance of Reptiles and Amphibians Within the Physiographic Regions of the Natchez Trace Parkway (Continued)

Nashville Basin Species	Relative Abundance Factor
Eastern Box Turtle	0.183
Eastern Fence Lizard	0.050
Five-lined Skink	0.050
Southern Leopard Frog	0.048
Ground Skink	0.033
Gray Tree Frog	0.032
Eastern Milk Snake	0.017
Eastern Worm Snake	0.017
Common Snapping Turtle	0.017
Black Kingsnake	0.017
Black Rat Snake	0.017
Eastern Hognose Snake	0.017
Mole Kingsnake	0.017
Smooth Earth Snake	0.017
Green Frog	0.016

Table 6 below summarizes the reptile and amphibian species found in the twelve general habitats along the length of the Natchez Trace Parkway and their relative abundance within that habitat. The numbers in parenthesis after the habitat name indicates the total number of sampling points in that habitat over the length of the parkway.

Table 6 Relative Abundance of Retile and Amphibian Species in the Twelve General Habitats Along the Natchez Trace Parkway

Stream (105) Species	Relative Abundance Factor	Lake (46) Species	Relative Abundance Factor
Southern Leopard Frog	0.333	Red-eared Slider	1.283
Green Frog	0.295	Southern Leopard Frog	1.217
Bullfrog	0.210	Bronze Frog	0.848
Bronze Frog	0.200	Red-spotted Newt	0.609
Red-eared Slider	0.200	Green Frog	0.565
Southern Cricket Frog	0.200	Southern Cricket Frog	0.217
Midland Water Snake	0.105	Chicken Turtle	0.174
Smooth Softshell Turtle	0.067	Smooth Softshell Turtle	0.174

Table 6 Relative Abundance of Retile and Amphibian Species in the Twelve General Habitats Along the Natchez Trace Parkway (Continued)

Stream (105)	Relative	Lake (46)	Relative
Species	Abundance	Species	Abundance
(Continued)	Factor	(Continued)	Factor
Diamond-backed Water Snake	0.038	Bird-voiced Tree Frog	0.087
Northern Cricket Frog	0.029	Diamond-backed Water Snake	0.087
Northern Water Snake	0.029	Green Anole	0.087
Three-toed Box Turtle	0.029	Midland Water Snake	0.087
Western Cottonmouth	0.029	Eastern Fence Lizard	0.065
Chicken Turtle	0.019	Northern Cricket Frog	0.065
Ground Skink	0.019	Southern Painted Turtle	0.065
Eastern Mud Turtle	0.019	Bullfrog	0.043
Five-lined Skink	0.019	Common Snapping Turtle	0.043
Rough Green Snake	0.019	Western Cottonmouth	0.043
Common Snapping Turtle	0.019	Ground Skink	0.022
Red-spotted Newt	0.019	Mississippi Map Turtle	0.022
Eastern Garter Snake	0.010	Broad-headed Skink	0.022
Gray Tree Frog	0.010	Eastern Mud Turtle	0.022
Broad-headed Skink	0.010	Spring Peeper	0.022
Gray Rat Snake	0.010	Stinkpot	0.022
Spring Peeper	0.010	Three-toed Box Turtle	0.022
Stinkpot	0.010	Five-lined Skink	0.022
Three-toed Amphiuma	0.010	Yellow-bellied Watersnake	0.022
Black Kingsnake	0.010		
Upland Chorus Frog	0.010		
Green Tree Frog	0.010		
Yellow-bellied Watersnake	0.010		

Swamp (39) Species	Relative Abundance Factor	Riparian Woodland (75) Species	Relative Abundance Factor
Southern Cricket Frog	0.385	Southern Cricket Frog	0.360
Bronze Frog	0.282	Northern Cricket Frog	0.227
Red-eared Slider	0.256	Southern Leopard Frog	0.147
Bird-voiced Tree Frog	0.231	Gray Tree Frog	0.120
Northern Cricket Frog	0.231	Five-lined Skink	0.093
Eastern Narrow-mouthed Toad	0.103	Green Anole	0.093
Green Frog	0.103	Green Frog	0.093
Green Tree Frog	0.103	American Toad	0.067

Table 6 Relative Abundance of Retile and Amphibian Species in the Twelve General Habitats Along the Natchez Trace Parkway (Continued)

Swamp (39) Species	Relative Abundance	Riparian Woodland (75) Species	Relative Abundance
(Continued)	Factor	(Continued)	Factor
Western Lesser Siren	0.103	Eastern Fence Lizard	0.067
Bullfrog	0.077	Bird-voiced Tree Frog	0.067
Eastern Mud Turtle	0.077	Bullfrog	0.053
Western Cottonmouth	0.077	Green Tree Frog	0.053
Mud Snake	0.051	Red-eared Slider	0.053
Gray Tree Frog	0.051	Bronze Frog	0.040
Yellow-bellied Water Snake	0.051	Eastern Box Turtle	0.027
Red-spotted Newt	0.026	Broad-headed Skink	0.027
Southern Copperhead	0.026	Ground Skink	0.027
American Alligator	0.026	Gray Rat Snake	0.027
Southern Painted Turtle	0.026	Eastern Ribbon Snake	0.027
Midland Water Snake	0.026	Three-toed Box Turtle	0.027
Eastern Ribbon Snake	0.026	Rough Green Snake	0.027
		Squirrel Tree Frog	0.027
		Corn Snake	0.013
		Rainbow Snake	0.013
		Spring Peeper	0.013
		Alligator Snapping Turtle	0.013
		Southern Black Racer	0.013
		Yellow-bellied Water Snake	0.013

Bottomland Hardwood Woodland (37) Species	Relative Abundance Factor	Upland Pine Woodland (48) Species	Relative Abundance Factor
Spring Peeper	0.162	Five-lined Skink	0.167
Southeastern Five-lined Skink	0.108	Southern Black Racer	0.083
American Alligator	0.054	Ground Skink	0.042
Southern Painted Turtle	0.054	Eastern Hognose Snake	0.021
Green Anole	0.027	Eastern Fence Lizard	0.021
Mud Snake	0.027	Eastern Worm Snake	0.021
Northern Cricket Frog	0.027	Slimy Salamander	0.021
Razor-backed Musk Turtle	0.027	Speckled Kingsnake	0.021
Red-eared Slider	0.027	Three-toed Box Turtle	0.021
Southern Cricket Frog	0.027	Western Cottonmouth	0.021
Diamond-backed Water Snake	0.027	Yellow-bellied Water Snake	0.021

Table 6 Relative Abundance of Retile and Amphibian Species in the Twelve General Habitats Along the Natchez Trace Parkway (Continued)

Bottomland Hardwood Woodland (37) Species (Continued)	Relative Abundance Factor	Red Cedar Woodland (6) Species	Relative Abundance Factor
Eastern Mud Turtle	0.027	Five lined Skink	0.167
Speckled Kingsnake	0.027		
Chicken Turtle	0.027		
Three-toed Box Turtle	0.027		

Upland Hardwood Woodland (221) Species	Relative Abundance Factor	Mixed Hardwood-Pine Woodland (202) Species	Relative Abundance Factor
Eastern Box Turtle	0.081	Three-toed Box Turtle	0.129
Southern Black Racer	0.063	Ground Skink	0.099
Northern Black Racer	0.054	Slimy Salamander	0.074
Three-toed Box Turtle	0.050	Corn Snake	0.064
Ground Skink	0.036	Southern Black Racer	0.064
Eastern Fence Lizard	0.032	Speckled Kingsnake	0.059
Southern Copperhead	0.032	Red-eared Slider	0.040
Five-lined Skink	0.023	Rough Green Snake	0.035
Gray Tree Frog	0.023	Southern Copperhead	0.035
Corn Snake	0.018	Eastern Box Turtle	0.025
Red-eared Slider	0.018	American Toad	0.020
Southern Leopard Frog	0.018	Broad-headed Skink	0.020
Black Kingsnake	0.014	Eastern Fence Lizard	0.020
Northern Cricket Frog	0.014	Green Anole	0.020
Rough Green Snake	0.014	Squirrel Tree Frog	0.020
Yellow-bellied Water Snake	0.014	Gray Rat Snake	0.015
Fowler's Toad	0.009	Mud Snake	0.010
Gray Rat Snake	0.009	Five-lined Skink	0.010
Slimy Salamander	0.009	Black Kingsnake	0.005
Western Cottonmouth	0.009	Red-spotted Newt	0.005
Green Anole	0.005	Ringneck Snake	0.005
Northern Red Salamander	0.005	Northern Cricket Frog	0.005
Northern Water Snake	0.005	Midland Water Snake	0.005
Mole Salamander	0.005	Eastern Garter Snake	0.005
Green Frog	0.005	Southern Cricket Frog	0.005
Eastern Mud Turtle	0.005	Southern Leopard Frog	0.005
Eastern Milk Snake	0.005	Slider	0.005

Table 6 Relative Abundance of Retile and Amphibian Species in the Twelve General Habitats Along the Natchez Trace Parkway (Continued)

Upland Hardwood Woodland (221) Species (Continued)	Relative Abundance Factor	Mixed Hardwood-Pine Woodland (202) Species (Continued)	Relative Abundance Factor
Southern Cricket Frog	0.005	Common Snapping Turtle	0.005
Mud Snake	0.005	Diamond-backed Water Snake	0.005
Eastern Worm Snake	0.005	Black Rat Snake	0.005
Smooth Earth Snake	0.005	Stinkpot	0.005
Speckled Kingsnake	0.005	Canebrake Rattlesnake	0.005
Eastern Garter Snake	0.005	Western Cottonmouth	0.005
American Toad	0.005		
Eastern Hognose Snake	0.005		

Prairie (29) Species	Relative Abundance	Fallow Agricultural Field (56)	Relative Abundance
Species	Factor	Species	Factor
Ground Skink	0.207	Red-eared Slider	0.036
Broad-headed Skink	0.138	Five-lined Skink	0.018
Corn Snake	0.103	Common Snapping Turtle	0.018
Five-lined Skink	0.103	Southern Black Racer	0.018
Black Kingsnake	0.069	Three-toed Box Turtle	0.018
Red-eared Slider	0.069	_	
Speckled Kingsnake	0.069	Active Agricultural Field	
		(25) Species	
Three-toed Box Turtle	0.069		
Mole Kingsnake	0.034	Red-eared Slider	0.080
Diamond-backed Water Snake	0.034	Eastern Box Turtle	0.040
Rough Green Snake	0.034	Southeastern Five-lined Skink	0.040
Southern Black Racer	0.034		
Southern Cricket Frog	0.034		
Southeastern Five-lined Skink	0.034		
Slimy Salamander	0.034		
Common Snapping Turtle	0.034		
Eastern Hognose Snake	0.034		
Western Cottonmouth	0.034		
Yellow-bellied Water Snake	0.034		

Section VII Threatened and Endangered Species and Species in Need of Management

The Natchez Trace parkway transverses portions of the states of Mississippi, Alabama and Tennessee. The federal Endangered Species Act (ESA) lists eight species with ranges in those three states. These include the Gopher Tortoise, Alabama Red-bellied Turtle, Flattened Musk Turtle, Eastern Indigo Snake and Red Hills Salamander in Alabama, the Ringed Sawback Turtle and Yellow-blotched Sawback Turtle in Mississippi and the Bog Turtle in Tennessee. Of these species, only the Ringed Sawback Turtle includes a portion of the Parkway in its distribution. This turtle occurs only in the Pearl River drainage with possible intrusion into the Parkway between mileposts 108 and 150. No individuals of this species were identified during this inventory process. No Federally listed threatened or endangered reptile or amphibian species were identified during this inventory.

In addition to the ESA listed species, each state also lists species as monitored, protected or as species in need of management within each individual state. These species are listed below with discussion regarding the findings of these inventory surveys relating to the listed species.

Mississippi lists the following species as endangered:

Dusky Gopher Frog Black-knobbed Sawback Turtle

Cave Salamander Gopher Tortoise
Green Salamander Green Sea Turtle
Spring Salamander Hawksbill Sea Turtle
Black Pine Snake Leatherback Sea Turtle
Eastern Indigo Snake Loggerhead Sea Turtle

Rainbow Snake Mississippi Red-bellied Turtle

Southern Hognose Snake Ringed Sawback Turtle

Atlantic Ridley Sea Turtle Yellow-blotched Sawback Turtle

Of these species, only three (Cave Salamander, Black-knobbed Sawback Turtle and the Rainbow Snake) include the Mississippi portions of the Natchez Trace Parkway within their range of distribution. The Cave Salamander and Black-knobbed Sawback Turtle could potentially enter the Parkway lands in the area between Tupelo and the Alabama state line. The Rainbow Snake is a potential find from milepost 150 south to Natchez. During the inventory surveys only one individual Rainbow Snake was located at a site north of Jackson. Inventory researchers believe that this snake may be more common than the inventory surveys indicate and possibly more common than state researchers believe. Little is known of the life history of this species and it is extremely secretive. From what is known about them, there appears to be plentiful acceptable habitat for them on Parkway lands and in other areas of southern Mississippi.

Alabama lists the following species:

Threatened Endangered

American Alligator Leatherback Sea Turtle
Eastern Indigo Snake Hawksbill Sea Turtle

Threatened

Endangered

Loggerhead Sea Turtle Green Sea Turtle Gopher Tortoise Flattened Musk Turtle Red Hills Salamander

Kemp's Ridley Sea Turtle Alabama Red-bellied Turtle

None of these species include the Alabama portions of the Natchez Trace Parkway in their home distribution. While American Alligators were found during this inventory process, they were all located in Mississippi where they are not listed.

Tennessee lists the following species:

Endangered

There are no endangered reptile or amphibian species listed in Tennessee.

Threatened

Tennessee Cave Salamander Bog Turtle Northern Pine Snake Western Pygmy Rattlesnake

Wildlife in Need of Management

Hellbender Black-bellied Salamander

Black Mountain Dusky Salamander Mole Salamander Four-toed Salamander Barking Tree Frog

Janaluska Salamander Eastern Slender Glass Lizard

Weller's Salamander Green Anole

Wehrle's Salamander
Seepage Salamander
Seepage Salamander
Sepage Salamander
Six-lined Racerunner
Green Water Snake
Alligator Snapping Turtle

Of these listed species, eight include the Tennessee portions of the Natchez Trace Parkway in their normal distribution. These are the Hellbender, Four-toed Salamander, Alligator Snapping Turtle, Green Anole, Six-lined Racerunner, Eastern Slender Glass Lizard, Western Pygmy Rattlesnake and Northern Pine Snake. While an Alligator Snapping Turtle and many Green Anoles were identified during the course of these inventory surveys, they were all found in Mississippi where they are not listed. A Mole Salamander was found within five miles of the Tennessee state line in Alabama where it is not listed. While it appeared that suitable habitat exists on Parkway lands in Tennessee for all eight species, no individuals of any of them were located during this inventory.

Section VIII Anecdotal Observation Records

Anecdotal observations are those observations made by other people, outside the study, which may or may not be verified as to the true species observed. The usefulness of this type of data is limited and depends, to a great extent, on the experience of the observer. Sixty seven species are listed on the Observation Database for the Natchez Trace Parkway. The observers in these cases are unknown to the researchers on this project and thus the reliability of the observations would be in question. Nine species appear on the database which did not occur on the Parkway during the inventory surveys for this project. They are listed below with the states in which they were reported:

Queen Snake—TN Eastern Coachwhip—TN
Western Pygmy Rattlesnake—MS Slender Glass Lizard—MS
Timber Rattlesnake—MS & TN Marbled Salamander—MS
Scarlet Kingsnake—MS Spotted Salamander—TN

As stated above, reliability of these observations may be questionable, however, all observations appear to be well within the range of distribution of the species involved and all **should** be found on the Parkway lands in the areas they were observed. The Timber Rattlesnakes observed in Mississippi were probably Canebrake Rattlesnakes, a well defined subspecies.

The National Park Service personnel also forwarded to our researchers a list of 53 reptile and amphibian species accumulated by Dr. Richard Seigel and his herpetology classes from Southeastern Louisiana University during class field trips on the Natchez Trace Parkway from 1988 to 1996. According to this list, "all species...were verified by at least two experts." We would assume that Dr. Seigel was one of these experts and, as he is a dominant figure in herpetological study in the southeastern United States, these observations are considered by these researchers to be very reliable. This list contains twelve species which were not on the inventory for this project or listed above.

Green Salamander

Dusky Salamander

Pickerel Frog

Southern Two-lined Salamander Ringed Sawback Turtle
Long-tailed Salamander Common Map Turtle

Cave Salamander Coal Skink

Spring Salamander Western Ribbon Snake

In addition to these species, Seigel's list confirms the Marbled Salamander, Scarlet Kingsnake, and Queen Snake listed above. Again, all observations on this list appear to be well within the range of distribution for the species involved and all **should** be found on Parkway lands.

During the course of this study a number of NPS employees, especially maintenance workers and rangers, who are out on the Parkway daily, local inhabitants and visitors to the Parkway were interviewed in regards to reptile and amphibian species that they had observed on

the Parkway. While this is not a reliable method of gaining information for a study of this type, several interesting conclusions could be drawn from the information.

- 1. Many local people, especially in the Mississippi portions of the Parkway, fear all snakes and feel that all should be killed without delay.
- 2. Many local people and NPS personnel cannot distinguish between poisonous and nonpoisonous species of snakes. People throughout Mississippi portions of the Parkway informed us that "rattlesnakes" were uncommonly abundant during the 1999 surveys along the Parkway. During the surveys, however, no rattlesnakes were found on Parkway grounds that year. We were also informed to beware of the countless Water Moccasins along the Parkway and that they were extremely aggressive. Few were actually observed and the most aggressive snakes that were observed were the very similar, but harmless water snake species.

No additional species were accumulated utilizing these interviews.

Section IX Species Observed Outside of Their Normal Range

Three individual specimens, one each of three species were located in areas appearing to be outside of their normal ranges according to current literature. A four to five foot long American Alligator was identified in a marsh just north of the Tenn-Tom Picnic Area, north of Tupelo. At this size, researchers involved with this study believe that this individual was probably transported to that area by man, probably as a released pet. This locality is approximately 50 miles north of the designated range of this species. Local people interviewed in the area reported that alligators existed there some twenty years ago when beaver were more common in the area. That has not been verified to date.

A Yellow-bellied Slider was identified basking on a log about 75 feet from the Parkway road near milepost 134. This individual was approximately 60 miles northwest of the normal range of this species. Again, this individual could have been a released pet as this species is a commonly kept animal. It is also possible that this individual followed a system of streams and overland travel to arrive at this point. Yellow-bellied Sliders are certainly capable of long overland trips, especially during droughts and the breeding season, either of which could have affected this individual.

A Mole Salamander was identified under a coverboard near milepost 336 in Alabama, approximately 30 miles from the nearest point of that species' distribution. This locality may be a portion of the range of a disjunct population identified from northwestern Alabama (Conant 1998).

The areas in which each of these individuals were found could be described as typical habitat for their species. Long term studies may show populations of each species in the area they were found during this inventory.

Section X Species Suspected, But Not Verified by This Inventory

In addition to the taxa listed in Table 2 and Section VIII, twenty two additional species were found to include portions of the Natchez Trace Parkway in their range of distribution. Suitable habitat is available for all of these species on Parkway lands, however, none of these species have been verified on the Parkway to date as far as the researchers for this project know. These species are listed below:

Ouachita Map Turtle Red Milksnake

Black-knobbed Sawback Turtle Southeastern Crowned Snake

Missouri Slider Coral Snake
Spiny Softshell Turtle Hellbender
Banded Water Snake Mudpuppy

Green Water Snake Small-mouthed Salamander

Glossy Water Snake Tiger Salamander
Rough Earth Snake Four-toed Salamander
Northern Red-bellied Snake Dwarf Salamander
Brown Snake Eastern Spadefoot Toad

Scarlet Snake Crawfish Frog

Reasons for not finding these species during the inventory would vary. The drought would preclude finding many of the amphibians who require high humidity or moist microhabitats. Many of the snakes are very secretive or fossorial in nature. Possibly more of these species would be located by conducting inventory surveys during a year of more normal rainfall. More information on the weather appears in the following section.

Section XI Effects of a Three Year Drought on This Inventory

As stated previously in this report, the area encompassed by this inventory was adversely affected by a three year drought. During 1998, Monthly Precipitation Data from the Tupelo, Mississippi Airport indicated the beginning of the drought when that area finished the year with four and a half inches of precipitation below normal. This, in itself, was probably not detrimental to reptile and amphibian populations and there appeared to be enough moisture during the winter and early spring (1998-1999) to provide suitable conditions for amphibian breeding. During the late spring and early summer of 1999 the high temperatures and lack of precipitation began to take its toll. Over 60% of the sites utilized during the spring for minnow and turtle trapping completely dried up or were too shallow to utilize during the June and November sessions. Coverboards retained some moisture during 1999 although they did not "season" normally as a valuable microhabitat for reptiles and amphibians. By the end of December 1999, total precipitation was down by eleven inches for the two years. The winter and early spring of 1999-2000 provided little respite for amphibian populations. Many temporary ponds did not form and permanent ponds suffered from lack of water. Many small ponds which did form dried fast in the heat and the breeding season was lost in some areas due to ponds drying out before amphibian larvae could metamorphose. From January 1, 2000 through October 23, 2000 precipitation was down by 15 inches from the norm for that period in the Tupelo area. Minnow

trapping and turtle trapping were cut to almost non existent throughout the trace during the June and November sessions in 2000 and local people who keep track of precipitation on their own in the area south of Jackson, Mississippi spoke of precipitation up to 23 inches below normal at their home stations. Researchers checking coverboards throughout the trace during this period were met with cracked, parched earth under the shelters instead of the moist microhabitats expected. Amphibian catches in pitfall traps were down considerably from what was to be expected because salamander species were not moving around during the dry weather. Many species of aquatic turtles and snakes were found in areas very untypical for the species during this period. These individuals were probably traveling from a habitat that was drying up to a new, more suitable home. Examples of this include Red-eared Sliders and Common Snapping Turtles in agricultural fields far from water and Yellow-bellied Water Snakes crossing the Parkway at great distances from the nearest aquatic habitat. The paragraphs in Section V of this report further detail the effects of the drought on the efficiency of the various field techniques utilized in this inventory and the researchers involved with this inventory feel that many of the species listed in Sections VIII and X may have appeared on this inventory if the precipitation had been closer to normal during the period of the inventory. This is, however, speculation.

Section XII Conservation and Management Recommendations

As is the case with so many kinds of wildlife, reptiles and amphibians are under great pressure and they are rapidly disappearing from many areas where they were formerly abundant. This is due in the largest part to ignorance of the value of these animals, habitat destruction and exploitation for the pet trade. Current regulations of the National Park Service protect and manage all native wildlife within the National Park System lands. With this progressive attitude in mind, land managers at the Natchez Trace Parkway should entirely eliminate the collection of native reptiles and amphibians, except as allowed by law through the scientific collecting permit process, and enforce laws relating to killing or harassing of these animals to the highest degree possible.

All wetland areas could be enhanced by planting native grasses around the wetland to control erosion and reduce nutrient inputs into the water. This is a problem along waterways throughout the Parkway, but especially in the southern half. All amphibians and many aquatic reptiles are adversely effected by impurities in the water. To this end chemical pesticides and non-biodegradable herbicides should be avoided, especially within 300 feet of any wetland. They should be used only in conjunction with an established Integrated Pest Management Plan.

The following is recommended to further the success of the permanent wetlands on the Natchez Trace Parkway for reptile and amphibian species. Keep fish out of wetland areas, especially game fish, except for where nature provides them. These fish are highly predatory on amphibian eggs and larvae. Large game fish are also capable of ingesting adult frogs or salamanders and young aquatic snakes and turtles. Many amphibian species will not breed where these species are present. Even small fish species are capable of making heavy inroads on amphibian eggs.

While the wetlands along the Parkway appear to be in fair shape, they do not exist alone, but have hydrologic and biologic ties with the surrounding landscape. <u>Vegetative corridors should be provided or maintained where they exist between wetlands and surrounding upland areas.</u> Land managers should encourage vegetative diversity in all habitats located along the Natchez Trace Parkway.

Activities that will interrupt ecosystem processes should be avoided, or an alternative location for the activity should be sought. For example, avoid fragmentation activities that will interrupt the water flow patterns in wetland communities or create barriers between connected habitats used by reptile and amphibian species. Roads and firebreaks that disrupt natural hydrologic and burn patterns in higher quality ecotones that serve as reptile and amphibian habitat should be reduced to the minimum level necessary to accomplish the NPS mission, with remaining ecotones being allowed to recover. Roads that transect ecotones should be stabilized to prevent unnecessary erosion impacts and fire ditches and breaks should be restored to the original grade to restore natural hydrologic patterns. Where hydrologic fragmentation has already occurred, the NPS should conduct studies on its effect on reptile and amphibian populations. These studies should be comparative, comparing the fragmented habitats to more pristine habitats along the Parkway.

Whenever a building is removed along the Parkway, the following plan of action is recommended. This strategy has been adopted by several military reserves in the midwestern United States because agricultural land uses have reduced the habitat quality and potential hibernation sites for snakes and salamanders. This strategy may also prove helpful on the Natchez Trace Parkway lands. When buildings are removed, the foundation should be filled with the loose debris and covered with soil to create a snake and salamander hibernaculum. This practice should be repeated whenever a building is demolished at isolated sites along the Parkway. Costs for this practice would likely not be higher than hauling the debris away. Also, agricultural crops and manicured lawns in the immediate vicinity of these sites could be replaced by native grasses and plants to provide for a higher diversity of plant life.

During 1999-2000 a baseline inventory of the reptile and amphibian species was accomplished on the Natchez Trace Parkway. The results of this survey are included in this report. In addition, a proposed monitoring plan for these species was developed. This monitoring plan should be implemented as soon as time, personnel and financial resources are available. Since the initial inventory was accomplished during a severe drought, we also propose that the NPS conduct an additional year of inventory on the amphibian species during a year of more normal rainfall. This would give a more realistic baseline inventory of these species and their relative abundance on the Parkway.

Hazards to reptile and amphibian species on the Parkway include automobile traffic and mowing of large, open areas of the Parkway lands. While there have been numerous studies made on the effects of traffic on herp movements, the NPS may wish to investigate the effects of Parkway traffic on sedentary species such as woodland salamanders which make up a large percentage of the animal biomass in many areas of their ranges. During the course of the initial inventory, many box turtles were found with profound injuries or dead as the result of run-ins

with automobiles and mowers along the Parkway. When possible, <u>mowers should be set to cut</u> not less than at an eight inch height to avoid damaging or killing turtles and snakes utilizing the grassy areas of the Parkway. The NPS should investigate the effects of mowing on home range and movement of herp species on the Natchez Trace Parkway.

In some areas of the northeastern United States turtle curbs are utilized to cut down damage due to automobiles. These curbs consist of 8-10 inch high, four inch across concrete curbs. While it may be impractical to use these for the entire length of the Parkway, they could be utilized within 5 miles of major towns (such as Jackson, Tupelo, Cherokee and Franklin) along the Parkway where commuter traffic would heighten the chance for turtle/auto mishaps. They should be used in connection with adequate box culverts or culverts to allow for turtle movement under the roadway.

<u>Visitors</u> and employees at the Natchez Trace Parkway should be encouraged to leave microhabitats intact. Rocks, logs, boards and other ground debris should be replaced when disturbed. These microhabitats form a large share of the usable reptile and amphibian habitat on Parkway lands. This encouragement could potentially come in the form of bullets or notices on Parkway maps, literature and bulletin boards currently located at a number of pullovers throughout the Parkway. Brief statements prior to or following the Parkway film shown in the Visitors Center in Tupelo could also be utilized. These same sources could also be used to educate visitors and employees on the usefulness of these animals, and to prohibit the harassment of reptiles, amphibians and other native wildlife along the Natchez Trace Parkway.

Section XIII Acknowledgments

Funding for this project was derived from the operating budget of the National Park Service—Natchez Trace Parkway. Our thanks go to Dale Wilkerson, Gary Mason and Bill Whitworth of that organization who assisted in obtaining information and answering our questions, necessary to the accomplishment of this project. Special thanks also to the many rangers and maintenance personnel of the Parkway who took time from their busy schedules to give us locale information, keys to locked gates on Parkway lands and information regarding anecdotal observations of reptiles and amphibians on the Parkway. Special thanks also go to Dr. Jay Raveill and his crew of graduate students from Central Missouri State University for their assistance in the field portion of this study. Without the help of these individuals, this project would not have been possible.

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Presented by Thomas M. Hays on April 5, 2001

Thomas M. Hays-Sr. Biologist Accipiter Biological Consultants PO Box 16332 Portal, AZ 85632

APPENDIX A

SPECIES DISTRIBUTION MAPS

American Alligator

(Alligator mississippiensis)

Status: Uncommon

<u>Distribution and Habitat:</u> Found from Tenn-Tom Waterway south to Natchez in swamps, lakes, bayous other water bodies

<u>Special Habitat Requirements:</u> Requires banks, logs or other basking sites.

<u>Breeding:</u> Nests in mounds of vegetable debris 1-2 meters in diameter. Usually 20 to 30 eggs in nest.

<u>Food Habits:</u> Eats a wide variety of organisms ranging from small invertebrates to large mammals.

Other information: Once listed as federally threatened, now making a comeback throughout many areas of their former range.

Common Snapping Turtle

(Chelydra serpentina)

Status: Common

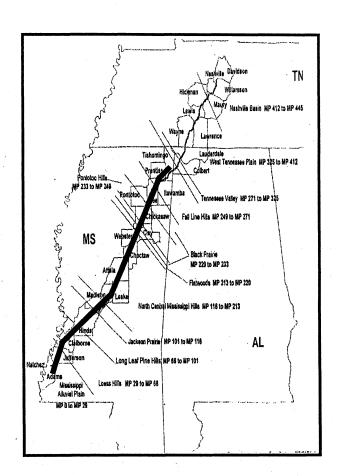
<u>Distribution and Habitat:</u> Found throughout the Natchez Trace Parkway in permanent bodies of fresh water. These water bodies may be large or small.

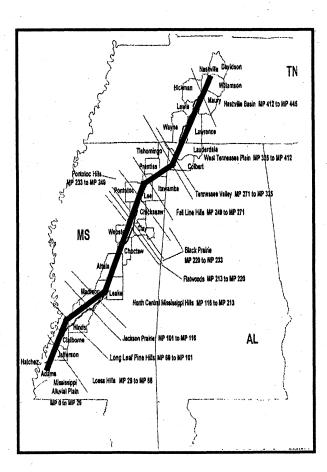
<u>Special Habitat Requirements:</u> Habitat generalist within aquatic habitat types.

<u>Breeding:</u> In early spring about 25 spherical eggs are laid in a shallow nest, sometimes at a considerable distance from water.

<u>Food Habits:</u> Omnivorous. Includes aquatic invertebrates, fish, reptiles, birds, mammals, carrion and aquatic vegetation.

Other information: In early spring adults may be seen wandering from one water body to another. Young may also be seen at this time traveling from nests to water.





Alligator Snapping Turtle

(Macroclemys temmincki)

Status: Uncommon

<u>Distribution and Habitat:</u> Should be found in larger lakes, streams and rivers in Mississippi and Alabama portions of the Natchez Trace Parkway.

<u>Special Habitat Requirements:</u> Generally found in water bodies containing fish populations.

<u>Breeding:</u> Six to forty eight ping pong ball sized, smooth-shelled eggs are deposited in a nest, usually only a few feet above the water line.

<u>Food Habits:</u> Primarily fish, but crayfish, snails, other turtles, amphibians, carrion, worms and some aquatic vegetation are also consumed.

Other information: Map shows distribution based on inventory surveys.



(Sternotherus odoratus)

Status: Common

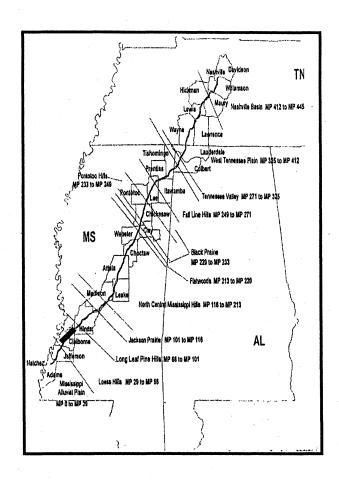
<u>Distribution and Habitat:</u> Should be found throughout the Natchez Trace Parkway in shallow, clear water lakes and streams.

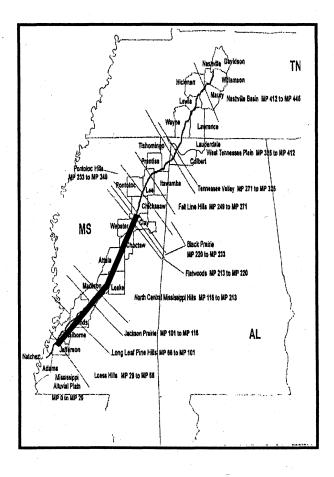
<u>Special Habitat Requirements:</u> Prefers still waters with soft bottoms.

<u>Breeding:</u> Two to five white, brittle, elliptical eggs are laid in soft dirt or humus close to water.

<u>Food Habits:</u> Omnivorous with insects and snails the most common foods.

Other information: Noted for its musky odor, a warning to predators.





Razor-backed Musk Turtle

(Sternotherus carinatus)

Status: Uncommon

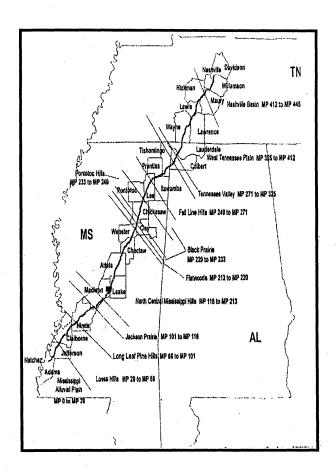
<u>Distribution and Habitat:</u> Streams and river swamps of the Natchez Trace Parkway south of Kosciusko, MS.

<u>Special Habitat Requirements:</u> Prefers still waters with soft bottoms.

<u>Breeding:</u> One to six white, brittle, elliptical eggs are laid in soft dirt or humus close to water.

<u>Food Habits:</u> Omnivorous with insects and snails the most common foods.

Other information: Basks more frequently than Stinkpot. Capable of climbing small shrubs near water.



Eastern Mud Turtle

(Kinosternon subrubrum)

Status: Common

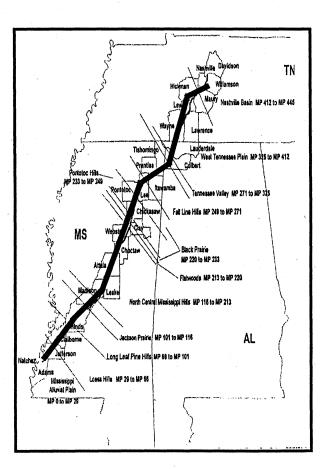
<u>Distribution and Habitat:</u> Found in creeks, ditches, ponds and lakes throughout the Natchez Trace Parkway.

<u>Special Habitat Requirements:</u> Prefers still waters with soft bottoms.

<u>Breeding:</u> Three to five elliptical eggs are laid in a nest of soft soil near the water in late spring.

<u>Food Habits:</u> Insects, mollusks, carrion and aquatic vegetation are the major dietary items.

Other information: Usually hides by day and forages underwater at night. Believed to be much more common than inventory methodologies would indicate.



Eastern Box Turtle

(Terrapene carolina carolina)

Status: Common

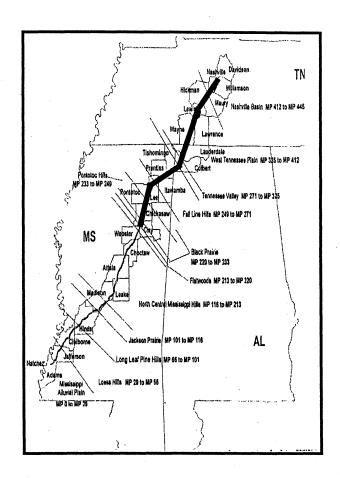
<u>Distribution and Habitat:</u> Largely terrestrial, they utilize forested habitats and field edges throughout the Natchez Trace Parkway from Houston, MS. north to the terminus.

<u>Special Habitat Requirements:</u> While being largely terrestrial, they do need water close at hand in which to soak.

<u>Breeding:</u> Three to eight eggs are laid in a shallow nest in loose soil in June or July.

<u>Food Habits:</u> A wide variety of plants and small animals are eaten.

Other information: Often seen crossing the Parkway especially after rains.



Three-toed Box Turtle

(Terrapene carolina triunguis)

Status: Common

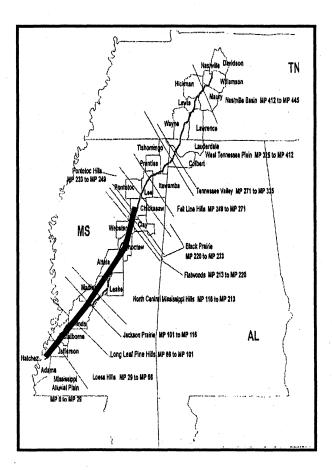
<u>Distribution and Habitat:</u> Largely terrestrial, they utilize forested habitats and field edges throughout the Natchez Trace Parkway from Houston, MS. south to Natchez, MS.

<u>Special Habitat Requirements:</u> Prefers woodland thickets close to water for soaking.

Breeding: Three to eight eggs are laid in a shallow nest in loose soil in June or July.

<u>Food Habits:</u> A wide variety of plants and small animals are eaten.

Other information: Often seen crossing the Parkway especially after rains.



Mississippi Map Turtle

(Graptemys kohni)

Status: Uncommon

<u>Distribution and Habitat:</u> Found in larger streams and rivers of the Natchez Trace Parkway south of Jackson, MS.

<u>Special Habitat Requirements:</u> Requires extremely high quality water which is in short supply on the Parkway.

<u>Breeding:</u> Lays ten to sixteen eggs in loose soil nest near water. Nests are flask shaped.

<u>Food Habits:</u> Aquatic insects, snails and other mollusks.

Other information: These weary baskers may sometimes be seen when females are searching for nest sites or basking on logs offshore in larger streams.

Yellow-bellied Slider

(Chrysemys scripta scripta)

Status: Uncommon

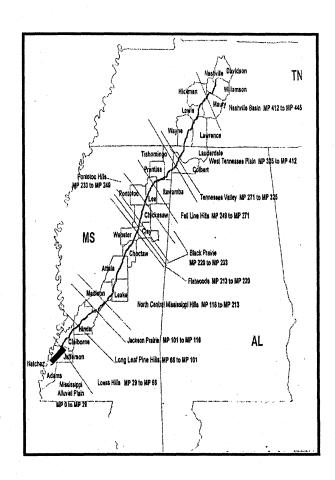
<u>Distribution and Habitat</u>: Inhabits rivers, ditches, sloughs, lakes and ponds. Should be found throughout the Natchez Trace Parkway.

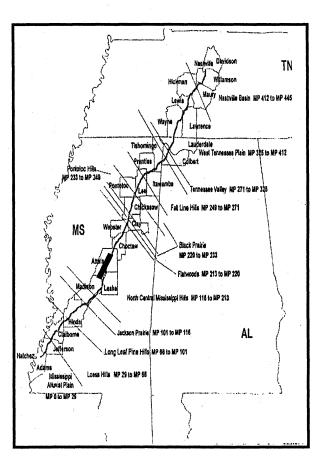
<u>Special Habitat Requirements:</u> Requires logs or banks for basking and aquatic vegetation for foraging.

<u>Breeding:</u> Approximately ten eggs are laid in a loose soil nest in May or June. The nest may be up to 200 feet from water.

<u>Food Habits:</u> This species is omnivorous, but juveniles are more carnivorous eating small aquatic insects and snails.

Other information: Should be much more common than inventories indicate. Hybridizes with other sliders.





Red-eared Slider

(Chrysemys scripta elegans)

Status: Common

<u>Distribution and Habitat:</u> Utilizes a variety of habitats including rivers, ditches, sloughs, lakes and ponds throughout the Natchez Trace Parkway.

<u>Special Habitat Requirements:</u> Requires quiet water with a muddy bottom and a profusion of vegetation.

<u>Breeding:</u> Approximately ten eggs are laid in a loose soil nest in May or June. The nest may be far from water. Multiple clutches may be laid.

<u>Food Habits:</u> This species is omnivorous, but juveniles are more carnivorous eating small aquatic insects and snails. Adults eat large amounts of aquatic vegetation.

Other information: This is a very commonly seen reptile on the Parkway. It is often seen crossing the road in spring.

Slider or River Cooter

(Chrysemys concinna)

Status: Uncommon

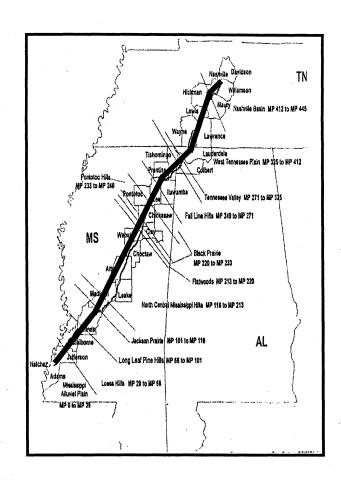
<u>Distribution and Habitat:</u> Fast flowing rivers or streams throughout the Natchez Trace Parkway.

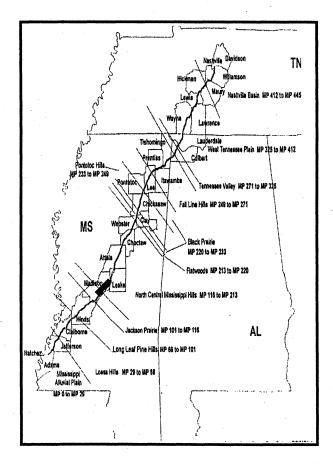
<u>Special Habitat Requirements:</u> Needs rivers with moderate current which are hard to find on the Parkway lands.

<u>Breeding:</u> About 20 elliptical eggs are laid in a nest dug in light soil in open areas near water. Two clutches a year may be produced.

<u>Food Habits:</u> Adults are largely herbivorous and the young omnivorous.

Other information: The entire Parkway is included in the distribution of this species but little quality habitat is to be found along its length.





Southern Painted Turtle

(Chrysemys picta dorsalis)

Status: Common

<u>Distribution and Habitat:</u> Found in ponds, marshes, ditches and backwaters of streams throughout the MS. Portion of the Natchez Trace Parkway.

<u>Special Habitat Requirements:</u> Requires shallow water with profuse aquatic vegetation and a soft, muddy bottom.

<u>Breeding:</u> Nesting occurs in early summer when two to ten eggs are laid in a nest dug out of loose soil near water.

<u>Food Habits:</u> Food consists of aquatic vegetation, insects, crayfish and small mollusks.

Other information: Often seen basking on logs or banks of small ponds or slow moving ditches on the Parkway.

Chicken Turtle

(Deirochelys reticularia)

Status: Common

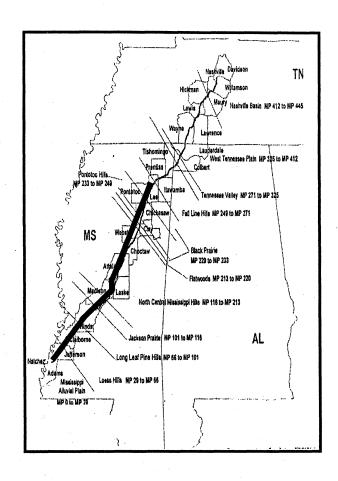
<u>Distribution and Habitat:</u> Inhabits still water of ponds, marshes, sloughs and ditches of the southern half of the Natchez Trace Parkway.

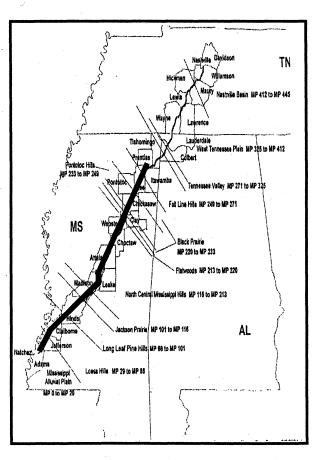
<u>Special Habitat Requirements:</u> Partial to ponds and marshes located in or near pine savannas.

Breeding: Nesting is prolonged, beginning in mid-March. Five to fifteen eggs are laid in loose soil near water with several compliments in a season.

<u>Food Habits:</u> Young are mostly carnivorous, but adults also eat aquatic plants. Snails and aquatic insects are the primary foods.

Other information: Frequently seen basking on logs or walking about on land.





Smooth Softshell Turtle

(Trionyx muticus)

Status: Common

<u>Distribution and Habitat:</u> Inhabits streams, rivers and rarely, lakes of the MS. Portion of the Natchez Trace Parkway.

<u>Special Habitat Requirements:</u> Streams or rivers with shallow areas and mud or soft sandy bottoms.

<u>Breeding:</u> Nests in May to July, laying up to 33 nearly spherical eggs in shallow nests on small islands or sandy shores.

<u>Food Habits:</u> Actively seek small prey including insects, fish, crayfish and worms. Amphibians, reptiles and carrion are also eaten when available.

Other information: Sometimes seen basking on banks or logs. Not found where Spiny Softshell Turtles are common.

Green Anole

(Anolis carolinensis)

Status: Common

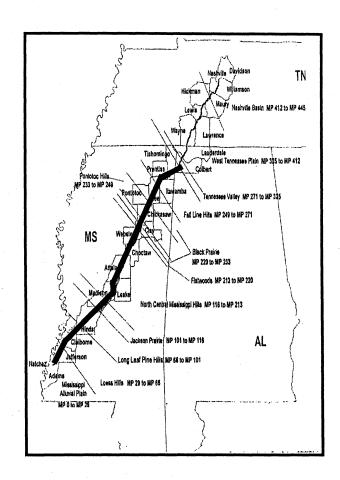
<u>Distribution and Habitat:</u> Occurs in disturbed areas such as roadsides, forest edges, old building sites and bridge abutments. The MS. and AL. portions of the Parkway are within the distribution of this species, but inventory surveys located them only south of Jackson on the Natchez Trace Parkway.

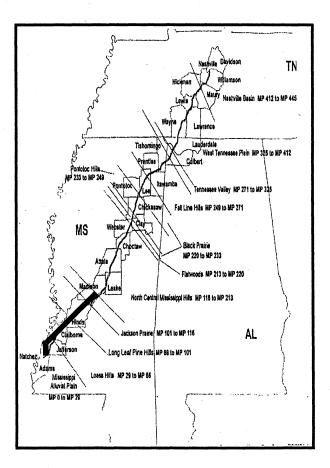
<u>Special Habitat Requirements:</u> Open areas with a profusion of shrubbery and sunlight.

Breeding: Female anoles produce one egg every two weeks from late spring into August. Eggs are laid in a shallow depression in moist soil, leaf litter or behind the bark of dead trees.

Food Habits: Small insects and spiders are eaten.

Other information: Often seen sunning on fences or bridge abutments on the Parkway.





Eastern Fence Lizard

(Sceloporus undulatus)

Status: Common

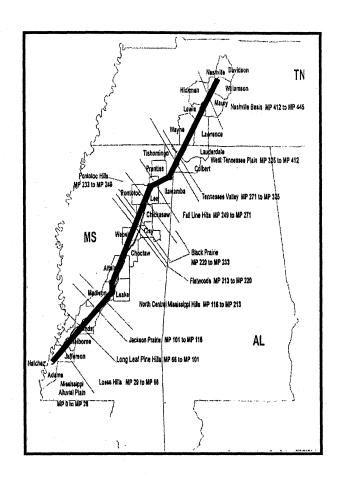
<u>Distribution and Habitat:</u> Inhabits open pine and mixed woods, building sites and bridge abutments throughout the Natchez Trace Parkway.

<u>Special Habitat Requirements:</u> Requires open areas with plenty of sunlight.

<u>Breeding:</u> Females lay six to ten eggs in burrows under rotten logs or similar places in late spring. Second clutches are sometimes produces in early summer.

<u>Food Habits:</u> Includes beetles, grasshoppers, caterpillars, spiders and snails.

Other information: Often seen sunning on bridges and rail fences the entire length of the Parkway.



Ground Skink

(Scincella lateralis)

Status: Common

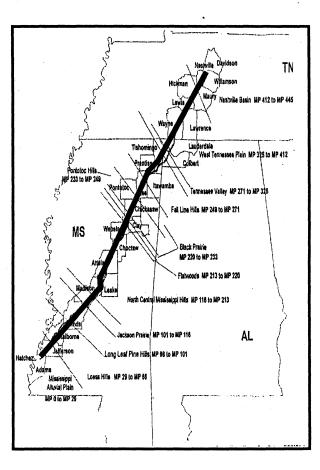
<u>Distribution and Habitat:</u> Open woodland areas the entire length of the Natchez Trace Parkway.

<u>Special Habitat Requirements:</u> Requires areas of leaf litter or detritus in which to forage.

Breeding: Two or more clutches of from one to seven eggs are laid in burrows under leaf litter.

Food Habits: Small insects and spiders are eaten.

Other information: This lizard is more often heard than seen as it forages in the leaf litter.



Five-lined Skink

(Eumeces fasciatus)

Status: Common

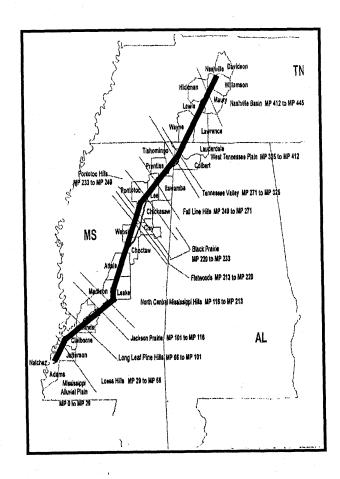
<u>Distribution and Habitat:</u> Usually found in moist, wooded areas throughout the Natchez Trace Parkway.

<u>Special Habitat Requirements:</u> Requires damp areas dead trees and snags where insects are abundant.

<u>Breeding:</u> Females lay six to twelve eggs in rotten wood or under a rock in June.

<u>Food Habits:</u> Feeds on larger anthropods such as big spiders, crickets, grasshoppers, beetles, harvestmen and snails.

Other information: Often seen sunning on bridges and fences along the length of the Parkway.



Broad-headed Skink

(Eumeces laticeps)

Status: Common

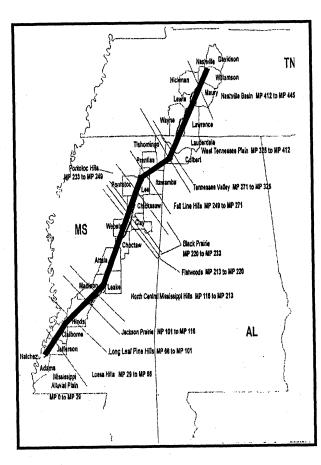
<u>Distribution and Habitat:</u> Inhabits wooded areas with large spreading trees such as live oaks and cypress. Utilizes dryer habitats than Five-lined Skinks. Found the entire length of the Natchez Trace Parkway.

<u>Special Habitat Requirements:</u> Requires large spreading trees and bare branches on which to bask. Sometimes utilizes tree cavities and hollow trees.

<u>Breeding:</u> Six to fifteen eggs are laid in June or July in nests in tree cavities, in rotten wood or under rocks or logs.

<u>Food Habits:</u> Larger anthropods are eaten. Specific species reflect the arboreal nature of this skink.

Other information: This species is often seen sunning on bridges along the Parkway.



Southeastern Five-lined Skink

(Eumeces inexpectatus)

Status: Common

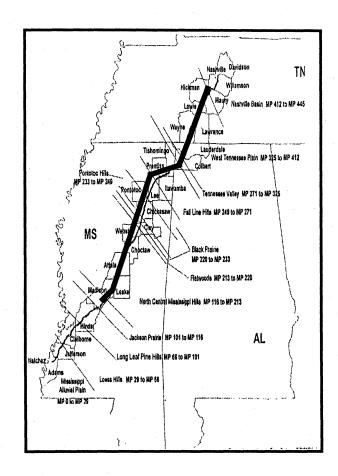
<u>Distribution and Habitat:</u> Dry woodlands. Inventory surveys showed this species from Jackson, MS. North well into Tennessee.

<u>Special Habitat Requirements:</u> Thrives in recently lumbered lands and other recently cleared areas.

<u>Breeding:</u> Females lay six to twelve eggs in rotten wood or under a rock in June.

<u>Food Habits:</u> Feeds on larger anthropods such as big spiders, crickets, grasshoppers, beetles, harvestmen and snails.

Other information: Can be seen sunning on logs in open areas of dry woods.



Diamond-backed Water Snake

(Natrix rhombifera)

Status: Common

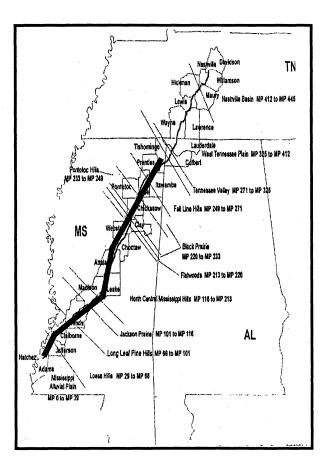
<u>Distribution and Habitat:</u> Appears in many aquatic habitats including lakes, rivers and ditches along the southern half of the Natchez Trace Parkway.

<u>Special Habitat Requirements:</u> Must have water bodies close by, as food is obtained in or near water.

<u>Breeding:</u> Five to twenty seven live young are born in late summer or early fall.

<u>Food Habits:</u> Food includes amphibians, fish and crayfish.

Other information: Often seen crossing the Parkway on overcast days. May also be seen along the banks of small lakes and ditches.



Yellow-bellied Water Snake

(Natrix erythrogaster flavigaster)

Status: Common

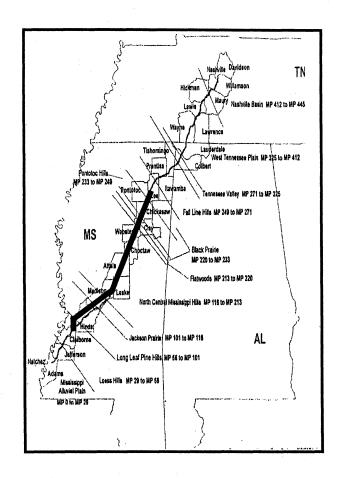
<u>Distribution and Habitat:</u> Usually found in or near river bottoms, swamps, marshes, ponds, and lakes.

<u>Special Habitat Requirements:</u> Requires larger, more permanent bodies of water.

<u>Breeding:</u> Five to thirty live young born in summer or early fall after spring mating.

<u>Food Habits:</u> Fish, toads and frogs constitute the principal foods.

Other information: This snake often wanders far from water in hot, humid weather. At these times they may be seen crossing the Parkway.



Northern Water Snake

(Natrix sipedon sipedon)

Status: Common

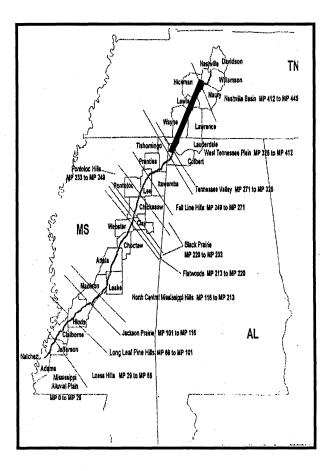
<u>Distribution and Habitat:</u> Resident of swamps, marshes, streams, ponds and lakes of the AL. and TN. portions of the Natchez Trace Parkway.

<u>Special Habitat Requirements:</u> Requires quiet waters with fish populations.

<u>Breeding:</u> Eight to fifty young are born live in late summer.

Food Habits: Fish and amphibians are the chief foods.

Other information: Often seen basking on logs or overhanging limbs at the waters edge.



Midland Water Snake

(Natrix sipedon pleuralis)

Status: Common

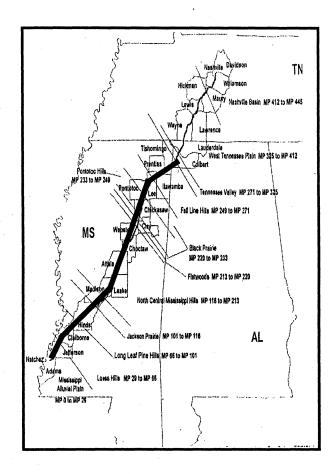
<u>Distribution and Habitat</u>: Utilizes streams, ponds, swales, marshes and river valleys throughout the southern 2/3 of the Natchez Trace Parkway.

<u>Special Habitat Requirements:</u> Usually requires water bodies with fish populations. Sensitive to pollution in water.

<u>Breeding:</u> Five to fifty live young are born in late summer.

<u>Food Habits:</u> Fish and amphibians are the major food sources.

Other information: Often found basking on logs, banks and overhanging limbs at waters edge.



Eastern Garter Snake

(Thamnophis sirtalis sirtalis)

Status: Common

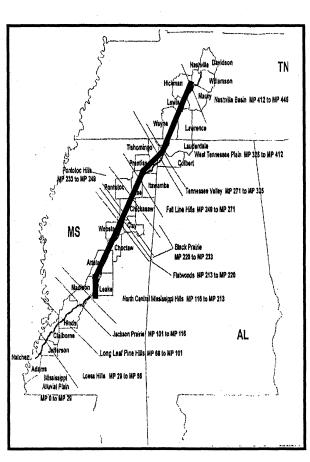
<u>Distribution and Habitat</u>: Habitat generalist. Should be found in meadows, marshes, woodlands, hillsides, along streams and drainage ditches throughout the Natchez Trace Parkway.

<u>Special Habitat Requirements:</u> Most often associated with moist environments and is sensitive to pollution.

<u>Breeding:</u> Seven to more than one hundred young are born alive in late summer.

<u>Food Habits:</u> Earthworms, fish and amphibians form the bulk of the diet.

Other information: Often seen foraging on forest floors or crossing the parkway during the day.



Eastern Ribbon Snake

(Thamnophis sauritus)

Status: Common

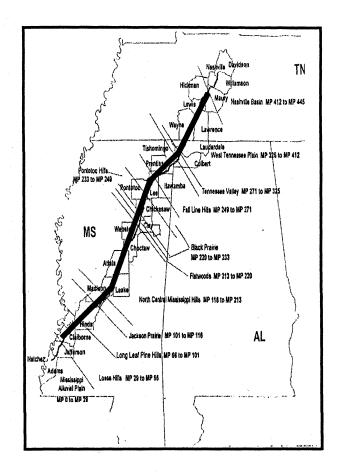
<u>Distribution and Habitat:</u> Found in marshes, damp meadows and stream margins throughout the Natchez Trace Parkway.

<u>Special Habitat Requirements:</u> Requires water bodies in close proximity with fish or amphibian populations.

<u>Breeding:</u> Three to twenty live young are born in mid to late summer.

<u>Food Habits:</u> Amphibians and small fish are the principal foods.

Other information: Often seen swimming at the surface of water bodies. Stays close to water.



Smooth Earth Snake

(Virginia valeriae)

Status: Unknown, probably uncommon and secretive.

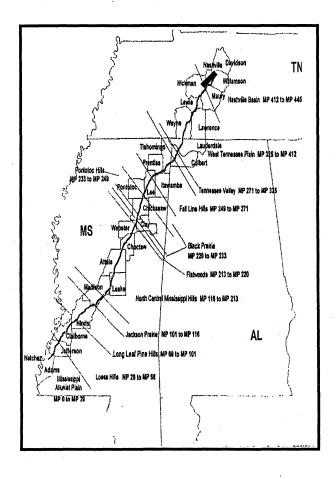
<u>Distribution and Habitat:</u> Most often found under surface cover in open woodlands and along forest edges.

<u>Special Habitat Requirements:</u> Usually associated with deciduous forests.

Breeding: Two to fourteen live young are born in the summer.

<u>Food Habits:</u> Feeds chiefly on earthworms.

Other information: Possibly seen crossing the Parkway during or after rains.



Eastern Hognose Snake

(Heterodon platyrhinos)

Status: Common

<u>Distribution and Habitat:</u> Inhabits most habitats along the Natchez Trace Parkway having sandy or friable loam soils.

<u>Special Habitat Requirements:</u> Sandy areas are required for foraging and nesting.

<u>Breeding:</u> In June or July four to sixty eggs are laid in nests a few centimeters deep in open sandy fields.

<u>Food Habits:</u> Toads are the principal food, but other amphibians, insects, birds and small mammals are occasionally eaten.

Other information: Both the all black phase and a brown spotted phase occur on the Parkway. These snakes are generally active during the day.

Ringneck Snake

(Diadophis punctatus)

<u>Status:</u> Unknown, probably more common than inventory surveys indicate.

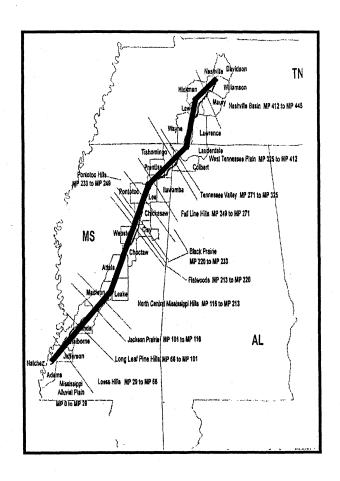
<u>Distribution and Habitat:</u> Frequents forested habitats with decaying logs or stumps.

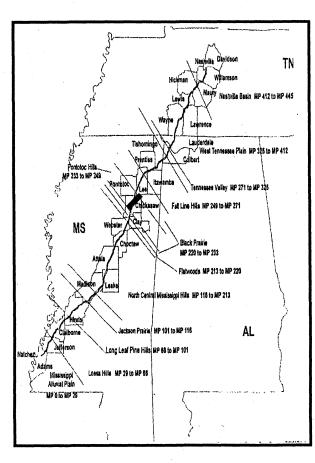
Special Habitat Requirements: While not aquatic, these snakes prefer areas where there is evidence of moisture such as around springs, damp forested hillsides and poorly drained pine woods.

<u>Breeding:</u> One to ten eggs are laid in sawdust piles, rotten logs or in damp soil under flat stones.

<u>Food Habits:</u> Earthworms and small salamanders are the principal foods, but frogs, lizards and other small snakes are sometimes eaten.

Other information: This species is almost entirely nocturnal. Individuals may be seen on the Parkway at night, especially during or following rains.





Eastern Worm Snake

(Carphaphis amoenus)

<u>Status:</u> Unknown, probably more common than inventory surveys indicate. Very secretive.

<u>Distribution and Habitat:</u> Inhabits moist forested areas. Should occur along the entire length of the Natchez Trace Parkway.

<u>Special Habitat Requirements:</u> Requires moist earth and will bury deep underground in dry weather.

<u>Breeding:</u> Two to eight eggs are laid in sawdust piles or rotten logs in early summer.

<u>Food Habits:</u> Earthworms and soft-bodied insects make up the food of this diminutive species.

Other information: Sometimes seen crossing roads at night, especially during and following rains. The best way to find these snakes is to turn over logs or flat rocks in moist woods.

Mud Snake

(Farancia abacura)

Status: Common

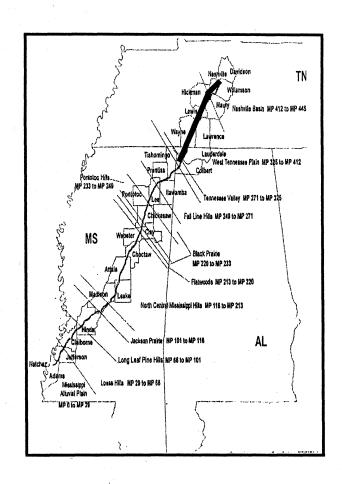
<u>Distribution and Habitat:</u> Primarily aquatic, living in cypress swamps and sluggish lowland streams throughout the MS. portions of the Natchez Trace Parkway.

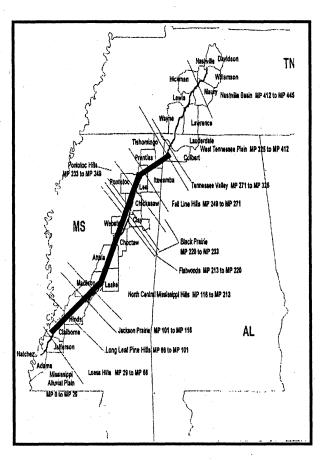
<u>Special Habitat Requirements:</u> Requires sandy areas adjacent to their aquatic habitats for aestivating during hot weather and for egg laying.

<u>Breeding:</u> Lays four to over one hundred eggs per clutch in sandy soil near their aquatic habitats.

<u>Food Habits:</u> Amphiumas and sirens are the primary foods, but other amphibians and fish are sometimes eaten.

Other information: Most often seen crossing the Parkway during and following rains.





Rainbow Snake

(Farancia erytrogramma)

<u>Status:</u> Unknown, probably much more common than inventory surveys indicate.

<u>Distribution and Habitat:</u> Habitats include rivers, large creeks, cypress swamps, lakes and marshes. Should be found in the southern 1/3 of the Natchez Trace Parkway.

<u>Special Habitat Requirements:</u> Require sandy areas near aquatic habitats for nesting.

<u>Breeding:</u> Twenty to 52 eggs are deposited in sandy nests near water.

<u>Food Habits:</u> Juveniles feed on amphibians, while adults feed largely on eels (*Anguilla*).

Other information: These snakes are very secretive and largely nocturnal. Usually seen in sandy fields in the spring or crossing roads on moist or humid nights.

Northern Black Racer

(Coluber constrictor constrictor)

Status: Common

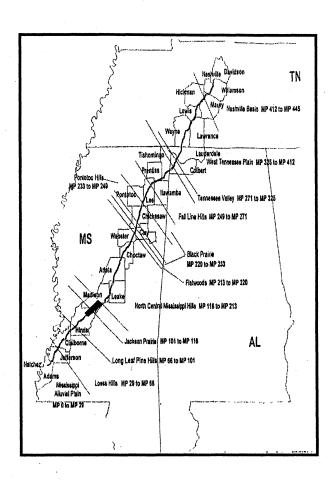
<u>Distribution and Habitat</u>: This snake is a habitat generalist throughout the northern 1/3 of the Natchez Trace Parkway.

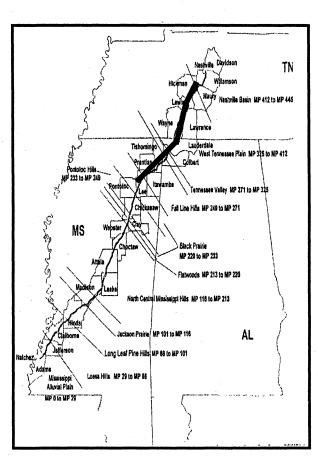
<u>Special Habitat Requirements:</u> Preferred habitats include brushy open areas, open woods and rocky hillsides.

<u>Breeding:</u> Four to twenty five eggs are laid in June or July and are deposited under rocks, in sawdust, rotten logs or stumps.

<u>Food Habits:</u> Insects, amphibians, reptiles, birds and small mammals are eaten.

Other information: This diurnal species is commonly seen crossing the Parkway.





Southern Black Racer

(Coluber constrictor priapus)

Status: Common

<u>Distribution and Habitat:</u> This snake is a habitat generalist throughout the southern 2/3 of the Natchez Trace Parkway.

<u>Special Habitat Requirements:</u> Preferred habitats include brushy open areas, open woods and rocky hillsides.

<u>Breeding:</u> Four to twenty five eggs are laid in June or July and are deposited under rocks, in sawdust, rotten logs or stumps.

<u>Food Habits:</u> Insects, amphibians, reptiles, birds and small mammals are eaten.

Other information: This is the snake most commonly seen crossing the Parkway.

Rough Green Snake

(Opheodrys aestivus)

Status: Common

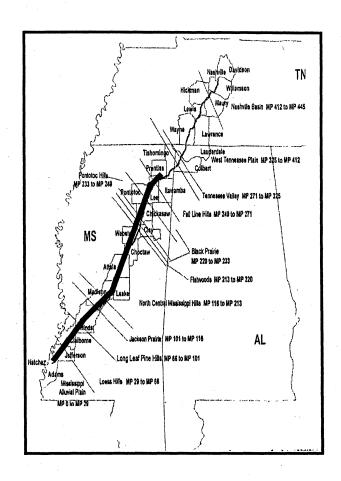
<u>Distribution and Habitat:</u> Forested environments throughout the Natchez Trace Parkway.

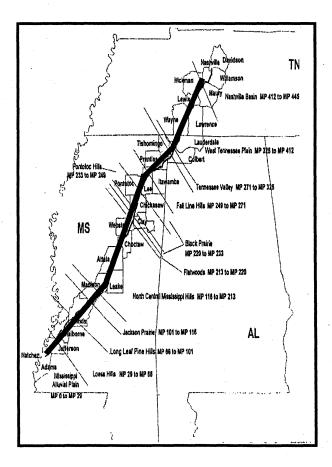
<u>Special Habitat Requirements:</u> Partial to the foliage of trees and shrubs overhanging streams and lakes.

<u>Breeding:</u> Three to twelve eggs are laid in late spring under bark of dead trees and rotten logs. Communal nesting occurs with clutches from several females found in one nest.

<u>Food Habits:</u> Spiders, grasshoppers, crickets, and insect larvae are the principal foods.

Other information: Hard to see in their preferred habitat, these snakes may be seen crossing the Parkway during the day.





Corn Snake

(Elaphe guttata guttata)

Status: Common

<u>Distribution and Habitat:</u> Found in most terrestrial habitats throughout the Natchez Trace Parkway from milepost 400 south.

Special Habitat Requirements: Prefers pine barrens or wooded areas on rocky slopes. This species spends most of its time prowling rodent burrows or other subterranean passageways.

<u>Breeding:</u> Three to twenty seven eggs are laid in abandoned rodent burrows or in or under rotten logs or sawdust piles.

<u>Food Habits:</u> Primarily feeds on small mammals but also eats birds and their eggs, frogs and lizards.

Other information: Often seen crossing the parkway during the day.

Black Rat Snake

(Elaphe obsoleta obsoleta)

<u>Status:</u> Uncommon, but probably more common than inventory surveys indicate.

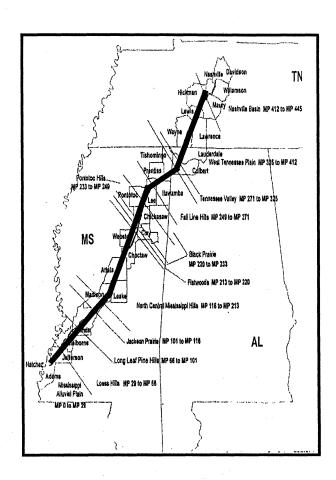
<u>Distribution and Habitat:</u> Occupies rocky timbered hillsides to flat farmland in the AL. and TN. portions of the Natchez Trace Parkway.

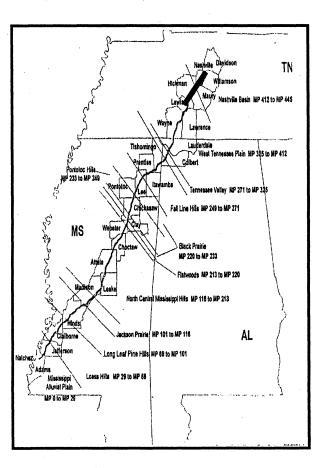
<u>Special Habitat Requirements:</u> Generally found near wooded areas.

<u>Breeding:</u> Five to twenty five eggs are deposited in rotten logs, stumps or sawdust piles in late spring or early summer.

<u>Food Habits:</u> Small mammals, birds and their eggs are the principal food items, although frogs and lizards are taken by young snakes.

Other information: Most easily observed while crossing the Parkway during the day.





Gray Rat Snake

(Elaphe obsoleta spiloides)

Status: Common

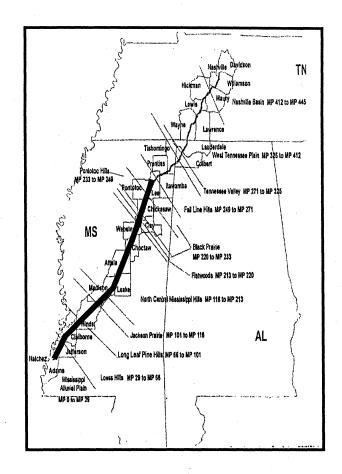
<u>Distribution and Habitat:</u> Occupies timbered hillsides to flat farmland in the southern 2/3 of the Natchez Trace Parkway.

<u>Special Habitat Requirements:</u> Generally found near wooded areas.

<u>Breeding:</u> Five to twenty five eggs are deposited in rotten logs, stumps or sawdust piles in late spring or early summer.

<u>Food Habits:</u> Small mammals, birds and their eggs are the principal food items, although frogs and lizards are taken by young snakes.

Other information: Often seen crossing the Parkway during the day.



Black Kingsnake

(Lampropeltis getulus niger)

Status: Common

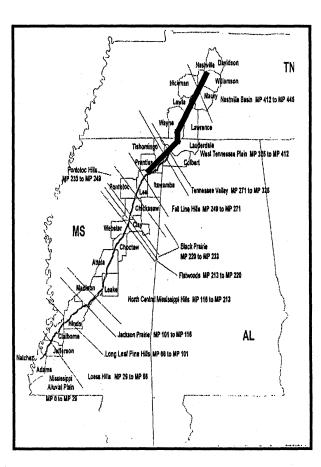
<u>Distribution and Habitat:</u> Habitats include dry, rocky hillsides, open woods, dry prairies and stream valleys in the northern ½ of the Natchez Trace Parkway.

<u>Special Habitat Requirements:</u> Requires surface cover under which to hide.

Breeding: Five to twenty eggs per clutch are laid in rotten logs and similar places.

<u>Food Habits:</u> These constrictors eat turtle eggs, lizards, birds, small mammals and other snakes including venomous ones.

Other information: Best found by turning over logs boards and other surface cover.



Speckled Kingsnake

(Lampropeltis getulus holbrooki)

Status: Common

<u>Distribution and Habitat:</u> Utilizes nearly all available habitats in the southern ½ of the Natchez Trace Parkway.

<u>Special Habitat Requirements:</u> Requires shelters such as logs, rocks, thick clumps of vegetation or ledges.

Breeding: Five to twenty eggs per clutch are laid in rotten logs and similar places.

<u>Food Habits:</u> Small mammals and other snakes are the principal food sources, although birds and some amphibians are also eaten.

Other information: Often seen crossing the Parkway in late morning or early afternoon.

Eastern Milk Snake

(Lampropeltis triangulum triangulum)

Status: Uncommon

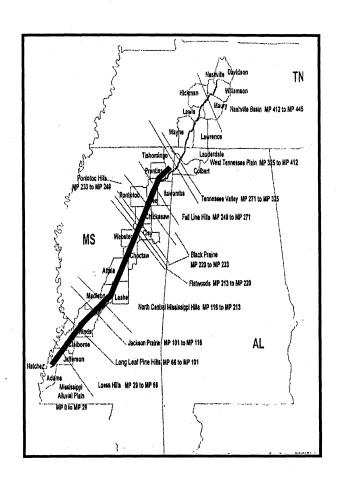
<u>Distribution and Habitat</u>: Utilizes fields, woodlands, rocky hillsides and river bottoms. This species is at the periphery of its range in the northern tier of counties in the TN. portion of the Natchez Trace Parkway.

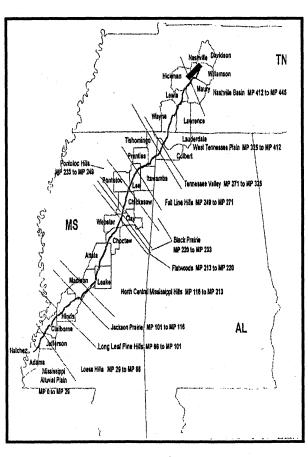
<u>Special Habitat Requirements:</u> This secretive snake requires shelters such as logs, rocks or boards under which to hide.

<u>Breeding:</u> Five to sixteen often adherent eggs are laid in sawdust or loose soil under objects such as rotten logs or rocks.

<u>Food Habits:</u> These constrictors feed chiefly on lizards, small snakes and small mammals.

Other information: May be seen on the Parkway at night or during the day. May also be found by turning surface cover such as logs or flat rocks.





Mole Kingsnake

(Lampropeltis calligaster rhombomaculata)

<u>Status:</u> Uncommon, although probably more common than inventory surveys indicate.

<u>Distribution and Habitat</u>: Habitats include woodlands, thickets near open fields, cultivated fields and pine flatwoods. Should be found throughout the northern 2/3 of the Natchez Trace Parkway.

<u>Special Habitat Requirements:</u> Requires loose or sandy soil for burrowing. Spends little time above ground.

<u>Breeding:</u> Six to seventeen eggs are laid in June or July in nests a few centimeters below the surface in sandy fields.

<u>Food Habits:</u> These constrictors eat small mammals, lizards and snakes as their principal foods.

Other information: May be found on the Parkway road at night or by turning logs and other surface cover during rainy weather.

Southern Copperhead

(Agkistrodon contortrix contortrix)

Status: Common

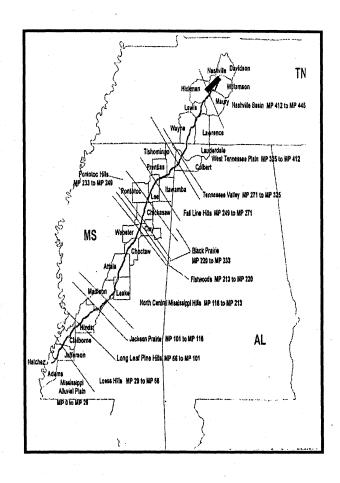
<u>Distribution and Habitat:</u> Found in wooded areas throughout the southern 2/3 of the Natchez Trace Parkway.

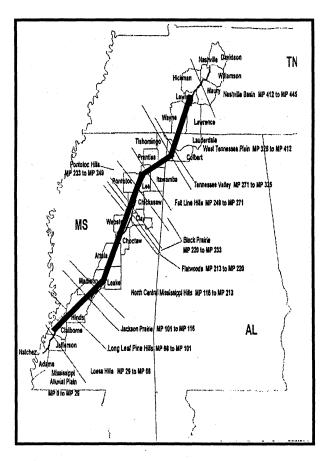
<u>Special Habitat Requirements:</u> Requires surface cover to hide under.

<u>Breeding:</u> Three to fourteen young are born live in late summer after spring mating.

<u>Food Habits:</u> Insects, amphibians, reptiles, birds and small mammals are eaten.

Other information: Often seen crossing the Parkway, especially after rains. Also seen on the forest floor during the day.





Western Cottonmouth

(Agkistrodon piscivorus leucostoma)

Status: Common

<u>Distribution and Habitat</u>: A denizen of lowland swamps, lakes, rivers and ditches, this snake should be found in aquatic conditions throughout the Natchez Trace Parkway.

<u>Special Habitat Requirements:</u> Prefers aquatic habitats with logs or overhanging branches on which to sun.

<u>Breeding:</u> Three to fourteen live young are born in late summer.

<u>Food Habits:</u> Fish and amphibians are the primary foods although reptiles, birds and small mammals are also eaten.

Other information: These snakes are often seen crossing the Parkway. They may be observed swimming in many small lakes and ponds along the Parkway.

Canebrake Rattlesnake

(Crotalus horridus atricaudatus)

<u>Status:</u> Uncommon, although probably more common than inventory surveys indicate.

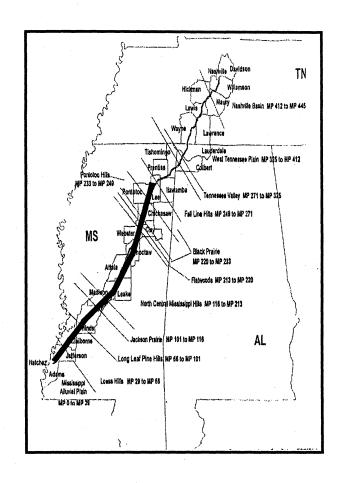
<u>Distribution and Habitat</u>: Occupy rocky hillsides, fields bordered by forests, and low pinewoods. Should be found throughout the MS. and AL. portions of the Natchez Trace Parkway.

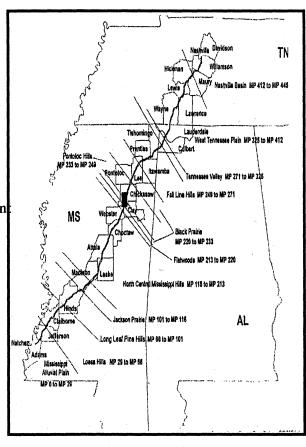
<u>Special Habitat Requirements:</u> Usually most common in secon forested areas where rodents abound.

<u>Breeding:</u> After mating in early spring, five to nineteen live young are born in August or September.

<u>Food Habits:</u> Small mammals, especially rodents are the chief food.

Other information: Sometimes seen crossing the Parkway.





Three-toed Amphiuma

(Amphiuma tridactylum)

<u>Status:</u> Uncommon, although probably more common than inventory surveys indicate.

<u>Distribution and Habitat:</u> Occupies bayous, ditches, oxbows, lakes and ponds. Should be found throughout the MS. portion of the Natchez Trace Parkway.

<u>Special Habitat Requirements:</u> Requires unpolluted muddy or mucky habitat.

Breeding: In winter females deposit long rosarylike strings of eggs in depressions beneath logs or other objects in moist or wet areas. Aquatic larvae hatch about 5 months later.

<u>Food Habits:</u> Insects, crayfish, mollusks, other amphibians and small reptiles are the primary foods.

Other information: Hard to observe in their natural habitat. Can be studied by dipnetting or with the use of minnow traps.

Western Lesser Siren

(Siren intermedia nettingi)

Status: Common

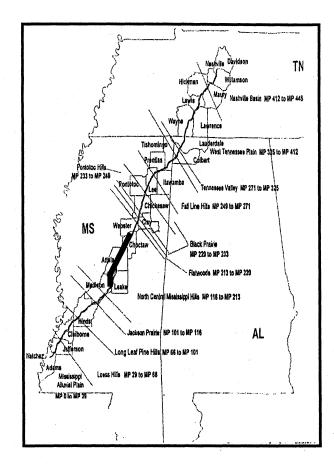
<u>Distribution and Habitat:</u> Swamps, ditches and ponds of the Natchez Trace Parkway.

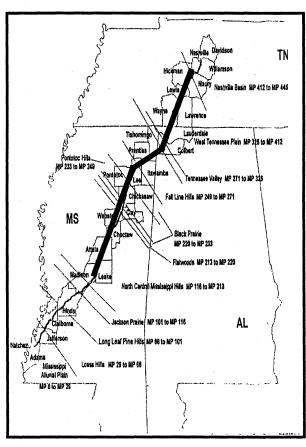
<u>Special Habitat Requirements:</u> Prefers quiet weed choked aquatic habitats. Spends daylight hours hiding in plant debris in shallow water.

Breeding: The female lays about 200 eggs in a small depression on the bottom of a pond in the spring.

<u>Food Habits:</u> Crustaceans, mollusks, worms, insects and algae are eaten.

Other information: These amphibians are hard to observe in their natural habitat. Easy to catch with minnow traps in appropriate habitats.





Mole Salamander

(Ambystoma talpoideum)

<u>Status:</u> Uncommon, although probably more common than inventory surveys indicate.

<u>Distribution and Habitat:</u> Occupy underground burrows in pine savannas, hardwood forests and swamps. Should be found throughout the southern ½ of the Natchez Trace Parkway.

<u>Special Habitat Requirements:</u> Chiefly confined to lowlands and valleys

Breeding: Mating occurs in winter. Females deposit ten to forty one eggs in small clusters attached to stems in shallow ponds. Larvae are aquatic and may over winter in the water.

<u>Food Habits:</u> Earthworms, insects and snails are the chief foods.

Other information: A confirmed burrower, this species is seldom seen except during the mating season.

Red-spotted Newt

(Notophthalmus viridescens)

Status: Common

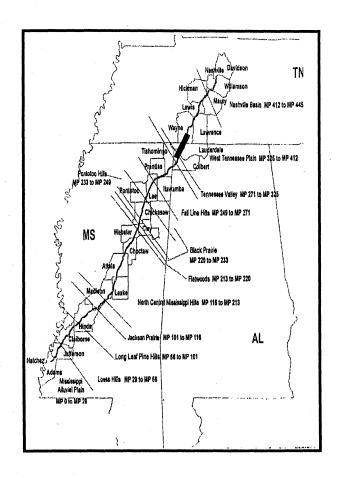
<u>Distribution and Habitat:</u> Occupies ponds, small lakes, marshes, ditches and quiet portions of small streams throughout the southern ½ of the Natchez Trace Parkway.

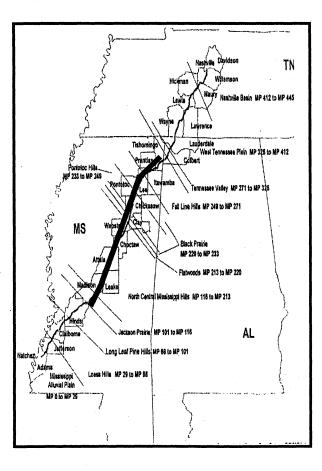
<u>Special Habitat Requirements:</u> Requires shallow permanent or semipermanent bodies of unpolluted water with live vegetation.

<u>Breeding:</u> After courtship in spring and fall the female deposits eggs singly on submerged vegetation, folding a leaf around each egg. Eggs hatch in about 35 days.

<u>Food Habits:</u> Food includes insects, crustaceans, mollusks and eggs of other amphibians.

Other information: Aquatic stages easily seen in small ponds along the Parkway.





Slimy Salamander

(Plethodon glutinosus)

Status: Common

<u>Distribution and Habitat:</u> Occurs in moist woodland habitats which are not susceptible to flooding. Should be found throughout the Natchez Trace Parkway.

<u>Special Habitat Requirements:</u> Requires more moisture than other salamanders of its genus.

<u>Breeding:</u> Eggs are laid in late summer or fall in or under logs and among roots. Young do not have an aquatic stage.

<u>Food Habits:</u> Invertebrates including earthworms, beetles and ants are the mainstay of the diet.

Other information: These salamanders may be observed by turning logs and flat rocks in their preferred habitat.

Northern Red Salamander

(Pseudotriton ruber ruber)

<u>Status:</u> Uncommon, but probably more common than inventory surveys indicate.

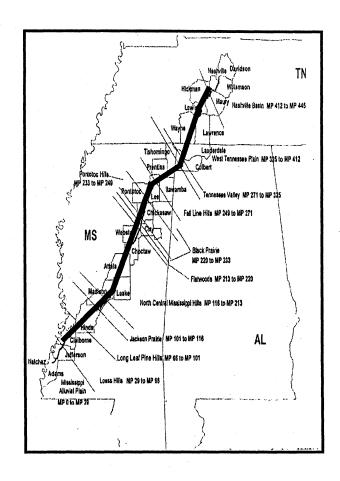
<u>Distribution and Habitat:</u> Occurs in or near springs or streams in open or wooded areas in the northern ½ of the Natchez Trace Parkway.

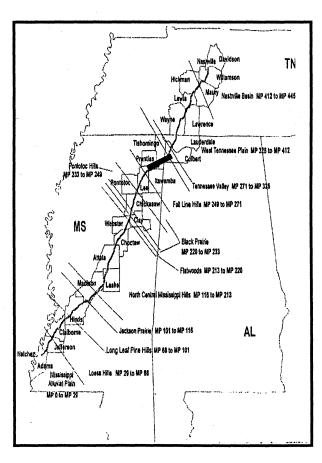
<u>Special Habitat Requirements:</u> Water must be clear, cool and not stagnant. Streams with bottoms of sand, gravel or rock are preferred.

Breeding: Courtship occurs in summer, spawning in October and hatching in December. About 70 eggs are laid in aquatic vegetation. The larval stage lasts about 32 months.

<u>Food Habits:</u> Earthworms, insects and smaller salamanders are the chief foods.

Other information: Most easily found by looking under moss, stones or logs in the preferred habitat.





American Toad

(Bufo americanus)

Status: Common

<u>Distribution and Habitat</u>: These toads are habitat generalists, inhabiting nearly all habitats along the Natchez Trace Parkway.

<u>Special Habitat Requirements:</u> Requirements include shallow water bodies in which to breed and moist areas in which to hide.

Breeding: Bred in February and March. The female lays 6000 eggs in two long strings on the bottom of shallow pools. Metamorphosis takes about 2 months.

<u>Food Habits:</u> This species will eat any insect or invertebrate it can fit into its mouth.

Other information: Often seen crossing the Parkway at night.

Fowler's Toad

(Bufo woodhousei fowleri)

<u>Status:</u> Uncommon, although probably more common than inventory surveys indicate.

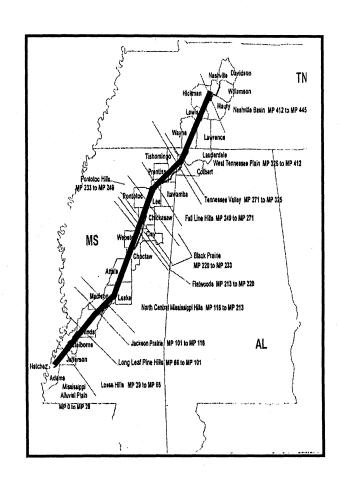
<u>Distribution and Habitat</u>: These toads are habitat generalists, inhabiting nearly all habitats along the Natchez Trace Parkway.

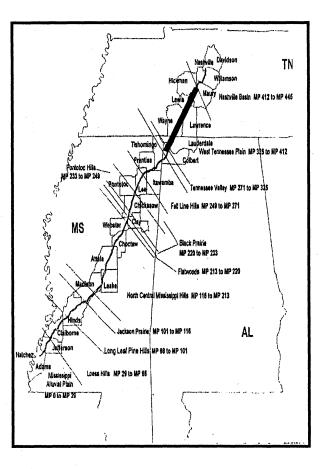
Special Habitat Requirements: Require sandy areas.

Breeding: Breeding occurs from March to May with the female laying about 7000 eggs in two strings. The eggs hatch in one week with the tadpoles transforming in one to two months.

<u>Food Habits:</u> This species will eat any insect or invertebrate it can fit into its mouth.

Other information: May be seen crossing the Parkway after rains. They disappear under ground during droughts.





Southern Cricket Frog

(Acris gryllus)

Status: Common

<u>Distribution and Habitat</u>: Inhabits grassy margins of quasi-permanent ponds, streams and ditches along the southern ½ of the Natchez Trace Parkway.

<u>Special Habitat Requirements:</u> Requires emergent vegetation or vegetation along the shore.

Breeding: Breeding takes place in late spring and summer. About 150 eggs are laid singly or in small groups attached to stems or scattered on the bottom in shallow water. Transformation occurs in late summer.

<u>Food Habits:</u> Small insects and spiders comprise the diet.

Other information: Commonly seen in appropriate habitats in all seasons along the Parkway.

Northern Cricket Frog

(Acris crepitans)

Status: Common

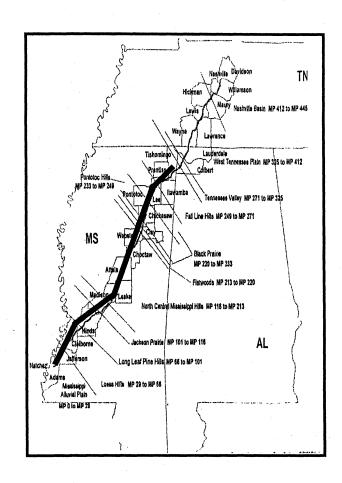
<u>Distribution and Habitat:</u> Occupies open grassy margins of ponds, ditches and marshy areas along the length of the Natchez Trace Parkway.

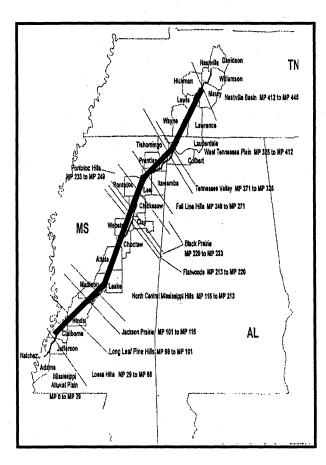
<u>Special Habitat Requirements:</u> Requires emergent vegetation or vegetation along the shore. Prefers moister microhabitats than the Southern Cricket Frog.

<u>Breeding:</u> Breeding takes place when weather warms up in the spring. Eggs are laid singly or in small groups attached to stems or scattered on the bottom in shallow water. Transformation occurs in late summer.

<u>Food Habits:</u> Small insects and spiders are the major food sources.

Other information: Commonly seen in appropriate habitats in warm weather along the Parkway.





Spring Peeper

(Hyla crucifer)

Status: Common

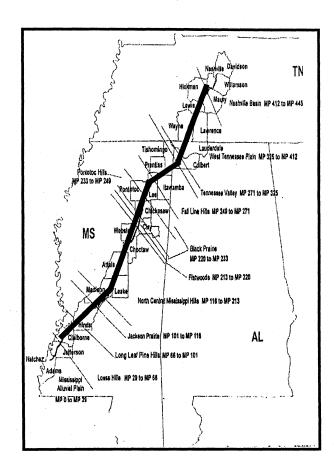
<u>Distribution and Habitat:</u> Occupies woodlands near temporary or semi-permanent ponds or swamps the entire length of the Natchez Trace Parkway.

<u>Special Habitat Requirements:</u> Requires second growth or cutover woodlots near unpolluted water body.

Breeding: Breeding occurs from October through March. About 900 eggs are attached singly to submerged objects in shallow water. Eggs hatch in 5 to 7 days and metamorphosis occurs in 3 to 4 months.

Food Habits: The diet consists of small arthropods.

Other information: This frog is seldom seen outside of the breeding season. It may sometimes be seen wandering in woody areas after rains.



Green Tree Frog

(Hyla cinerea)

<u>Status:</u> Uncommon, but probably much more common than inventory surveys indicate.

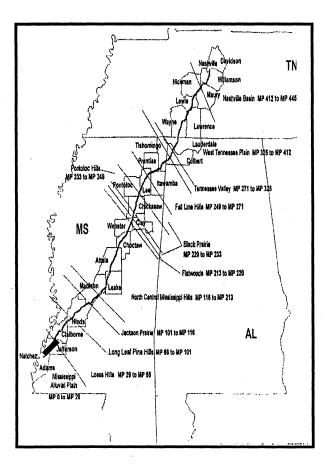
<u>Distribution and Habitat:</u> Habitats include swamps, borders of lakes, streams and ditches in the MS. portions of the Natchez Trace Parkway.

<u>Special Habitat Requirements:</u> Requires floating or emergent vegetation and a good supply of unpolluted water or moisture.

Breeding: Breeding takes place April through September. About 400 eggs are laid amid floating vegetation. The larval stage lasts about 2 months.

Food Habits: Insects are the principal food.

Other information: Best seen near lights at night as they feed on insects drawn to the light.



Squirrel Tree Frog

(Hyla squirella)

Status: Common

<u>Distribution and Habitat:</u> This species may be found about anywhere south of Jackson, MS. which provides moisture and a hiding spot.

<u>Special Habitat Requirements:</u> Prefers open woods near unpolluted water bodies.

<u>Breeding:</u> Breeding is associated with summer storms. The female lays bout 1000 eggs on the bottom of open ponds or pools. The tadpoles transform after 45 days.

Food Habits: Small insects are the chief food.

Other information: Most often seen after rains, this frog is often called "rain frog".

Gray Tree Frog (Complex)

(Hyla versicolor and Hyla chrysoscelis)

Status: Common

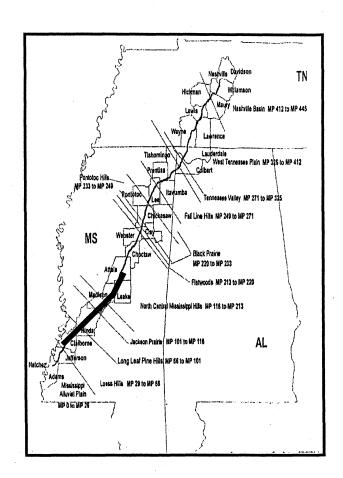
<u>Distribution and Habitat:</u> Both species may be found in areas with small trees or shrubs near or standing in shallow bodies of water along the entire length of the Natchez Trace Parkway.

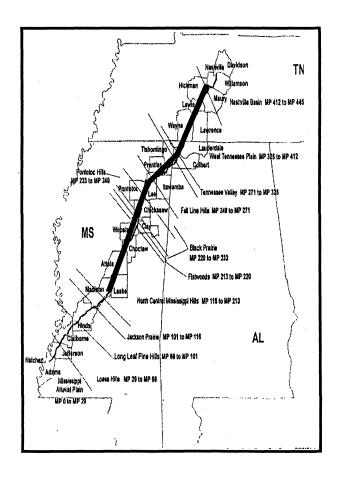
<u>Special Habitat Requirements:</u> Emergent vegetation in unpolluted water bodies are required.

Breeding: The breeding season is from May to August. Scattered groups of 10 to 40 eggs are laid on the surface of shallow ditches, puddles and ponds. Hatching occurs in 5 days and metamorphosis occurs in about 50 days.

Food Habits: Arboreal insects are the chief food.

Other information: These tree frogs are not often seen except in the breeding season. Both species may be heard singing in appropriate habitats along the Parkway.





Bird-voiced Tree Frog

(Hyla avivoca)

Status: Common

<u>Distribution and Habitat:</u> Occupies heavily wooded swamps bordering rivers and streams in the MS. portions of the Parkway.

<u>Special Habitat Requirements:</u> Requires permanently wooded swamps of cypress, tupelo, birch or buttonbush along creeks or waterways.

Breeding: Mating occurs in late spring and summer. The female deposits about 650 eggs in packets of 6 to 15 in shallow water. At high temperatures they hatch is 40 hours and metamorphosis occurs in about one month.

<u>Food Habits:</u> Arboreal insects and spiders are the main food sources.

Other information: These frogs are seldom seen outside of the breeding season, but may be heard in appropriate habitats singing from what appears to be high in trees.

Upland Chorus Frog

(Pseudacris triseriata feriarum)

<u>Status:</u> Uncommon, but most certainly more common than inventory surveys indicate.

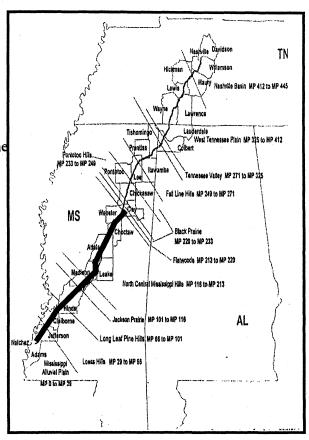
<u>Distribution and Habitat</u>: This species inhabits grassy swales, moist woodlands, river bottom swamps and the environs of ponds, bogs and marshes. It should be found along the entire length of the Natchez Trace Parkway.

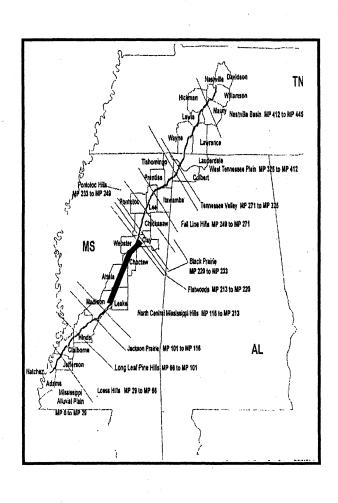
<u>Special Habitat Requirements:</u> Semi-permanent pools are required for breeding.

Breeding: Breeding occurs from December to March with the female laying about 1000 eggs in clusters of 60 each. Eggs are attached to vegetation. The tadpole stage lasts 2 to 3 months.

Food Habits: Small arthropods are eaten.

Other information: May be active year around.





Eastern Narrow-mouthed Toad

(Gastrophryne carolinensis)

<u>Status:</u> Uncommon, but probably more common than inventory surveys indicate.

<u>Distribution and Habitat</u>: This species inhabits the margins of water bodies in a wide variety of habitats and should be found the entire length of the Natchez Trace Parkway.

<u>Special Habitat Requirements:</u> Surface cover providing a moist microhabitat is required.

Breeding: Mating occurs in May through July during warm rains. About 850 eggs are laid in packets on the surface of shallow puddles, ponds or streams. The larval stage lasts 20 to 70 days depending on temperature.

<u>Food Habits:</u> This species is a food specialist on ants, although beetles and termites are sometimes taken.

Other information: This accomplished burrower is hard to find but may be found by turning logs and rocks in appropriate habitats after warm rains.

Bullfrog

(Rana catesbeiana)

Status: Common

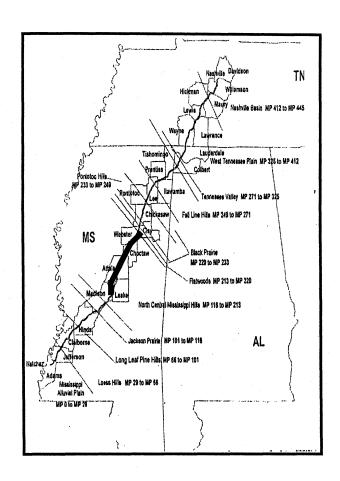
<u>Distribution and Habitat:</u> An aquatic frog inhabiting larger lakes, ponds, bogs, and sluggish streams the entire length of the Natchez Trace Parkway.

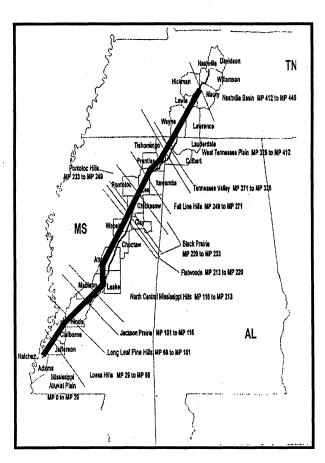
<u>Special Habitat Requirements:</u> Requires vegetation or snags at the water edge in which to hide.

<u>Breeding:</u> Mating takes place in late spring and summer. About 12,000 eggs are laid with hatching in 5 days and metamorphosis occurring about a year later.

<u>Food Habits:</u> Insects, crayfish and any small vertebrate which will fit in their mouths are eaten.

Other information: Often seen basking on logs or shores.





Bronze Frog

(Rana clamitans clamitans)

Status: Common

<u>Distribution and Habitat</u>: Habitats include swamps, bayheads, wet hammocks and the environs of streams in the lower 2/3 of the Natchez Trace Parkway.

<u>Special Habitat Requirements:</u> Requires logs, stumps or crevices in which to hide.

Breeding: Breeding in May and June, the female lays about 3000 eggs in a raftlike surface film. Most tadpoles transform within a few months but some overwinter.

<u>Food Habits:</u> Mainly arthropods, snails and worms are eaten.

Other information: The banjo-like twang of their call is often heard along the Parkway. They may be readily seen at most water bodies in their range.

Green Frog

(Rana clamitans melanota)

Status: Common

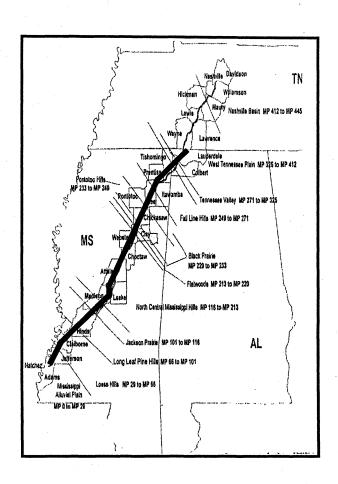
<u>Distribution and Habitat</u>: An inhabitant of shallow fresh water habitats throughout the northern ½ of the Natchez Trace Parkway, this species prefers streams and brooks.

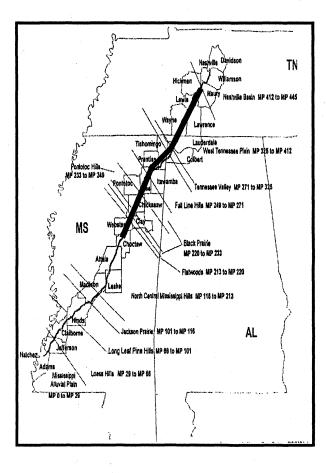
<u>Special Habitat Requirements:</u> Requires shallow, unpolluted water.

Breeding: Breeding in May and June, the female lays about 3000 eggs in a raftlike surface film. Most tadpoles transform within a few months but some overwinter.

<u>Food Habits:</u> Mainly arthropods, snails and worms are eaten.

Other information: This frog is most often observed near streams or ditches along the Parkway.





Southern Leopard Frog

(Rana utricularia)

Status: Common

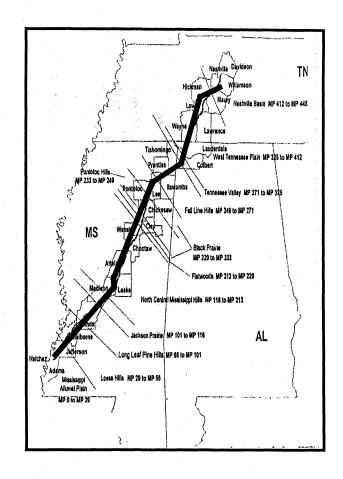
<u>Distribution and Habitat:</u> This frog may be found in all types of shallow fresh water habitats throughout the Natchez Trace Parkway.

<u>Special Habitat Requirements:</u> Requires shallow unpolluted water with vegetation.

Breeding: Breeding occurs in winter or early spring. Females attach a firm cluster of several hundred eggs to vegetation just below the water's surface. Eggs hatch in 7 to 10 days with metamorphosis occurring in about three months.

<u>Food Habits:</u> Insects and smaller frogs are the main food sources.

Other information: This frog may be readily observed as it ventures well away from water during the summer when vegetation can provide shelter and shade.



APPENDIX B

FIELD DATA

APPENDIX B KEY

Park

NATR = Natchez Trace Parkway

State

MS = Mississippi

AL = Alabama

TN = Tennessee

Ecosystem Provinces

1 = Lower Mississippi Riverine

2 = Outer Coastal Plain Mixed Forest

3 = Southeastern Mixed Forest

4 = Eastern Broadleaf Forest (Continental)

Physiographic Regions

MAPL = Mississippi Alluvial Plain

LOHI = Loess Hills

LLPH = Long Leaf Pine Hills

JAPR = Jackson Prairie

NCMH = North Central Mississippi Hills

FLAT = Flatwoods

BLPR = Black Prairie

POHI = Pontotoc Hills

FLHI = Fall Line Hills

TEVA = Tennessee Valley

WTHI = West Tennessee Hills

NABA = Nashville Basin

Sex

M = Male

F = Female

JUV = Juvenile

= Unknown

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0552 038 4 24 0556 039 4 24 0754 058 4 25 0754 058 4 25 1220 082 4 30 1220 082 4 30 1220 082 4 30 1220 082 5 01 1220 082 5 02 1251 085 5 02 1251 086 5 02 1269 086 5 02 1269 086 5 02 1269 108 5 02 1294 108 5 07 2149 147 5 07 2640 176 5 09 2640 176 5 09 2633 198 5 12 3956 266 5 21 395	1999 1999 1999 1999 1999 1999 1999	ш ш	902	3.5		SUNNING ON LOGS SUNNING IN SHRUB
0556 039 4 24 0754 058 4 25 0754 058 4 25 1220 082 4 30 1220 082 4 30 1220 082 5 01 1220 082 5 01 1220 082 5 02 1251 085 5 02 1269 086 5 02 1283 086 5 02 1594 108 5 07 2149 145 5 07 2149 147 5 07 2640 176 5 09 2640 176 5 09 2633 198 5 12 3956 266 5 21 3956 266 5 21 3956 266 5 21 030	1 9999 1 9999 1 9999 1 9999 1 9999 1 9999 1 9999 1 9999	ш ш	902			SUNNING ON LOGS SUNNING IN SHRUB
0754 058 4 25 0754 058 4 25 1220 082 4 30 1220 082 4 30 1220 082 4 30 1220 082 5 01 1220 082 5 02 1251 085 5 02 1251 085 5 02 1259 086 5 02 1594 108 5 03 2149 145 5 07 2149 146 5 07 2640 176 5 09 2640 176 5 09 2633 198 5 12 3591 243 5 10 2640 176 5 09 2933 198 5 12 3956 266 5 21 004	1999 1999 1999 1999 1999 1999	L	905			SUNNING ON LOGS SUNNING IN SHRUB
0754 058 4 25 1220 082 4 30 1220 082 4 30 1220 082 4 30 1220 082 5 01 1220 082 5 02 1251 085 5 02 1251 085 5 02 1253 086 5 02 1269 086 5 03 1594 108 5 03 2149 145 5 07 2149 146 5 07 2640 176 5 09 2640 176 5 09 2633 198 5 12 3956 266 5 21 3956 266 5 21 0304 021 6 10	1 1999 1 1999 1 1999 1 1999 1 1999 1 1999	L	905			SUNNING ON LOGS SUNNING IN SHRUB
1220 082 4 30 1220 082 4 30 1150 077 5 01 1220 082 5 01 1220 082 5 02 1251 085 5 02 1251 085 5 02 1259 086 5 02 1269 086 5 02 1294 108 5 03 2184 145 5 07 22193 146 5 07 2640 176 5 09 2640 176 5 09 2933 198 5 12 3956 266 5 21 0046 001 6 9 0304 021 6 10	1 1999 1 1999 1 1999 1 1999 1 1999	L	902			SUNNING ON LOGS SUNNING IN SHRUB
1220 082 4 30 1150 077 5 01 1220 082 5 01 1220 082 5 02 1251 085 5 02 1269 086 5 02 1283 088 5 02 1284 108 5 03 1594 108 5 03 2149 145 5 07 2184 176 5 09 2640 176 5 09 2640 176 5 09 2933 198 5 12 3956 266 5 21 0046 001 6 9 0304 021 6 10	1999 1999 1999 1999 1999	ш				SUNNING IN SHRUB
1150 077 5 01 1220 082 5 01 1220 082 5 02 1251 085 5 02 1251 086 5 02 1269 086 5 02 1294 108 5 02 1594 108 5 03 2149 145 5 07 2193 148 5 07 2640 176 5 09 2631 198 5 12 3591 243 5 19 3956 266 5 21 0046 001 6 9 0304 021 6 10	1999 1999 1999 1999	LL.				
1220 082 5 01 1220 082 5 02 1251 085 5 02 1251 085 5 02 1269 086 5 02 1283 088 5 02 1594 108 5 03 2149 145 5 07 2149 146 5 07 2640 176 5 09 2640 176 5 09 2633 198 5 12 3591 243 5 12 3556 266 5 21 0046 001 6 9 0304 021 6 10	1999 1999 1999	IL				
1220 082 5 02 1251 085 5 02 1251 085 5 02 1269 086 5 02 1283 088 5 02 1594 108 5 03 2149 145 5 07 2184 147 5 07 2193 148 5 07 2640 176 5 09 2933 198 5 12 3591 243 5 19 3956 266 5 21 0046 001 6 9 0304 021 6 10	1999 1999 1999	止				SONNING ON LOGS
1251 085 5 02 1251 086 5 02 1269 086 5 02 1283 088 5 02 1594 108 5 03 2149 145 5 07 2184 147 5 07 2640 176 5 09 2640 176 5 09 2633 198 5 12 3956 266 5 21 0046 001 6 9 0304 021 6 10	1999	Щ				
1251 085 5 02 1269 086 5 02 1283 088 5 02 1594 108 5 03 2149 145 5 07 2193 148 5 07 2640 176 5 09 2640 176 5 09 2933 198 5 12 3956 266 5 21 0046 001 6 9 0304 021 6 10	1999	ш				
1269 086 5 02 1283 088 5 02 1594 108 5 03 2149 145 5 07 2184 147 5 07 2193 148 5 07 2640 176 5 09 2640 176 5 09 2933 198 5 12 3591 243 5 19 3956 266 5 21 0046 001 6 9 0304 021 6 10			102	370	GRAVID	
1283 088 5 02 1594 108 5 03 1594 108 5 03 2149 145 5 07 2184 147 5 07 2240 176 5 09 2640 176 5 09 2933 198 5 12 3591 243 5 19 3956 266 5 21 0046 001 6 9 0304 021 6 10						
1594 108 5 03 1594 108 5 03 2149 145 5 07 2184 147 5 07 2293 148 5 07 2640 176 5 09 2631 198 5 12 3551 243 5 19 3956 266 5 21 0046 001 6 9 0304 021 6 10	1999					
1594 108 5 03 2149 145 5 07 2184 147 5 07 2193 148 5 07 2640 176 5 09 2633 198 5 12 3591 243 5 19 3956 266 5 21 0046 001 6 9 0304 021 6 10	-					
2149 145 5 07 2184 147 5 07 2193 148 5 07 2640 176 5 09 2933 198 5 12 3591 243 5 19 3556 266 5 21 0046 001 6 9 0304 021 6 10	_	Σ				
2184 147 5 07 2193 148 5 07 2640 176 5 09 2640 176 5 09 2933 198 5 12 3591 243 5 19 3956 266 5 21 0046 001 6 9 0304 021 6 10						
2193 148 5 07 2640 176 5 09 2640 176 5 09 2933 198 5 12 3591 243 5 19 3956 266 5 21 0046 001 6 9 0304 021 6 10		Ş				
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2640 176 5 09 2933 198 5 12 3591 243 5 19 3956 266 5 21 0046 001 6 9						SON LOGS
2933 198 5 12 3591 243 5 19 3956 266 5 21 0046 001 6 9 0304 021 6 10						SON NO SON ROCE
3956 266 5 21 00046 001 6 9 0304 021 6 10	1999 AM					4-5 ft LONG
3956 266 5 21 0046 001 6 9 0304 021 6 10	1999					
0304 021 6 9						
0304 021 6 10	1999					
77	1999 s					
0304 021 6 11	1999					
0304 021 6 11	1999 S.					
WB 0725 052 6 12	1999 GREEN ANOLE				LAYING	4 EGGS

Hand Collecting Database

Notes				SUNNING ON LOG									CALLING		2 MATING			CALLING	SUNNING ON LOG	SUNNING ON LOG			CHORUS	CALLING		CALLING	CALLING	CALLING	CALLING	CALLING	CALLING	CALLING	CALLING	CALLING	CALLING	CALLING	
Length Weight Reproductive	Condition																																				
Weight	(gr)		3				5			1.5				0.5											2.5												1.5
Length	(mm)		42				61			19				28											21												34
Sex					ш				ட																												
Species		(2) GROUND SKINK	GROUND SKINK	(5) RED-EARED SLIDER	E. GARTER SNAKE	GROUND SKINK	FIVE-LINED SKINK	N. CRICKET FROG	GREEN ANOLE	N. CRICKET FROG	GROUND SKINK	N. CRICKET FROG	GREEN TREE FROG	SPRING PEEPER	(4) GREEN ANOLE	BRONZE FROG	GROUND SKINK	(2) S. LEOPARD FROG	SMOOTH SOFT SHELL TURTLE	RED-EARED SLIDER	(2) BULLFROG	(2) BRONZE FROG	N. CRICKET FROG	S. CRICKET FROG	S. LEOPARD FROG	(3) GREEN FROG	GREEN FROG	(2) GRAY TREE FROG	GRAY TREE FROG	(2) GRAY TREE FROGS	GREEN FROG	(2) S. LEOPARD FROGS	BRONZE FROG	BRONZE FROG	(2) BRONZE FROG	(2) BRONZE FROG	BIRD-VOICED TREE FROG
Year		1999	1999	1999	1999	1999	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Day		14	16	17	60	11	25	25	25	26	27	27	27	28	30	2	2	9	11	11	12	12	13	14	14	15	11	19	19	29	29	29	30	30	31	-	
Month		9	9	9	11	11	4	4	4	4	4	4	4	4	4	2	ည	2	5	2	5	2	2	2	5	2	2	5	5	5	2	5	5	2	2	9	9
Point Month D		117	154	176	178	158	010	021	021	021	021	021	015	021	690	108	116	108	187	187	171	171	184	198	209	198	211	245	256	297	297	297	290	061	007	033	082
Mile	Post	1720	2289	2640	2666	2346	0161	0304	0304	0304	0304	0304	0215	0304	1037	1594	1705	1594	2789	2789	2564	2564	2739	2933	3098	2933	3115	3627	3806	4333	4333	4333	0863	0794	0127	0480	1220
Habitat	-	×	XX	4	NM	XX	ST	4	4	Y	Y	Ϋ́	ST	4	WR	ST	×	ST	ST	ST	ST	ST	×	n M	4	SW	WR	WR	WR	NM M	NM	NM	ST	WR	WR	SW	SW
Physio-	graphic Region		BLPR	BLPR	BLPR	POHI	MAPL	FOH	HOT	FOH	FOH	FOH	MAPL	FOH	JAPR	NCMH	NCMH	NCMH	FLH	FIH	BLPR	BLPR	FIH	표교	FIE	王记	HH	WTPL	WTPL	NABA	NABA	NABA	LLPH	LLPH	MAPL	HOT	NCMH
Eco-	system	3	0 8	3	3	3	1	2	2	2	2	2	-	2	3	3	3	3	3	33	3	က	3	3	3	3	3	4	4	4	4	4	3	3	-	2	3
State		MS	MS W	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	¥	MS	AL	Z	Z	Z	Z	N	MS	MS	MS	•	MS
Park State		NATR	MATR	NATR	NATR	NATR	MATR	NATR	NATR	NATR	MATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR

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Notes						SUNNING ON LOG	SUNNING ON LOG	CALLING	CALLING	CALLING		SUNNING ON LOG	CALLING	
Sex Length Weight Reproductive	Condition													
Weight	(gr)		1	2							2.5			496
Length	(mm)		18	50							48			121
Sex				ц.										ц.
Species			N. CRICKET FROG	GREEN FROG	E. RIBBON SNAKE	W. COTTONMOUTH	(4) RED-EARED SLIDER	(2) S. CRICKET FROG	(2) BRONZE FROG	(4) S. CRICKET FROG	BRONZE FROG	RED-EARED SLIDER	(4) S. CRICKET FROG	E. BOX TURTLE
Day Year			2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
			l	1	1	1	l	7	7	2	2	7	2	11
Point Month			9	9	9	9	9	9	9	9	9	9	9	9
Point			082	082	082	082	082	073	073	980	166	198	198	296
Mile	Post		1220	1220	1220	1220	1220	1104	1104	1269	2462	2933	2933	4328
Habitat			SW	SW	SW	SW	SW	ΓY	ΓA	WR	ST	SW	SW	MN
Physio- Habitat	graphic	Region	NCMH	NCMH	NCMH	NCMH	NCMH	JAPR	JAPR	NCMH	BLPR	FLHI	FLH	NABA
Eco-	system	Province	3	3	3	3	3	3	3	3	3	3	3	4
State			MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	N
Park State			NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR

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Notes		SHEDDING	TADPOLE		,	TADPOLE	TADPOLE	TADPOLE	TADPOLE															JUV.				TADPOLE	TADPOLE	ADULTAQUATIC	ADULTAQUATIC	NEOTENIC	NEOTENIC	TADPOLE	
Reproductive Condition																																	·		
Sex Length Weight		110		73	95		1.5			290	105	42	14	270		40	85	273	9	44	28	65	62	13	3	2.5	2.5			9	4	3	4		14
Length		440		400	510		28			099	524	340	22	280		404	515	542	52	192	219	430	434	254	26	24	23			48	45	40	38		59
Sex		Σ	7	ட	ш					Щ	Σ	Σ		Ŧ		Σ	Σ	Σ	Σ		Σ	Н	Σ	Σ						Σ	Σ				
Species		MIDLAND WATER SNAKE	S. LEOPARD FROG	MIDLAND WATER SNAKE	MIDLAND WATER SNAKE	(4) BRONZE FROG	BRONZE FROG	(3) S. LEOPARD FROG	BRONZE FROG	DIAMONDBACK WATER SNAKE	DIAMONDBACK WATER SNAKE	DIAMONDBACK WATER SNAKE	BRONZE FROG	W. COTTONMOUTH	N. CRICKET FROG	MIDLAND WATER SNAKE	YELLOW-BELLIED WATER SNAKE	DIAMONDBACK WATER SNAKE	BRONZE FROG	W. LESSER SIREN	DIAMONDBACK WATER SNAKE	MIDLAND WATER SNAKE	MIDLAND WATER SNAKE	DIAMONDBACK WATER SNAKE	S. LEOPARD FROG	S. LEOPARD FROG	S. LEOPARD FROG	S. LEOPARD FROG	(7) S. LEOARD FROG	RED-SPOTTED NEWT	RED-SPOTTED NEWT	RED-SPOTTED NEWT	RED-SPOTTED NEWT	(10) GREEN FROG	GREEN FROG
Trap #		1	2	2	2	1	1	1	1	2	2	2	2	2 .	1	1	2	2	1	2	1	1	2	1	2	1	1	2	2	1	1	1	1	1	2
Year		1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999
Day		22	23	22	25	25	25	25	26	28	28	28	29	30	30	1	1	2	2	9	10	10	11	11	11	12	12	12	12	13	13	13	13	13	13
Month Day		4	4	4	4	4	4	4	4	4	4	4	4	4	4	2	2	2	2	2	2	2	2	9	9	2	9	2	2	2	2	2	2	5	5
Mile Post		0237	9900	0304	0304	0304	0304	0456	0304	0834	0834	0826	1201	1037	1185	1044	1185	1044	1201	1589	2531	2531	2531	2435	2535	2535	2535	2535	2529	3098	3098	3098	3098	3098	3098
Habitat		ST	ST	4	۲٦	4	4	ST	≤	Ŋ	Y	M	ST	ST	LS	ST	ST	ST	ST	SW	ST	ST	ST	ST	ST	ST	ST	ST	ST	H	۲	4	4	۲	4
Physio- graphic	Region	MAPL	MAPL	LOHI	IHOT	LOHI	LOHI	IHOT	LOHI	LLPH	HdTT	HdTT	NCMH	JAPR	NCMH	JAPR	NCMH	JAPR	NCMH	NCMH	BLPR	BLPR	BLPR	POHI	BLPR	BLPR	BLPR	BLPR	BLPR	FLHI	FLHI	FLHI	FLHI	FLHI	FLH
Eco- system	Province	-	-	2	2	2	2	2	2	3	3	က	3	3	3	3	3	3	3	3	3	3	3	3	က	က	က	3	3	3	3	က	3	3	3
State		MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	AL.	A.	A.	٩Ľ	AL	AL
Park State		NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR

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Notes	TADPOLE	ADULTAQUATIC	NEOTENIC	NEOTENIC	NEOTENIC	ADULTAQUATIC	ADULTAQUATIC	TADPOLE	ADULTAQUATIC		TADPOLE	TADPOLE			ADULTAQUATIC	LARVAL	TADPOLE	TADPOLE		•					TADPOLE	TADPOLE				AQUATIC ADULTS	NEOTENIC			
Sex Length Weight Reproductive Condition																																		
Weight				3		2.5				2			2						14	226	151	42	61	8			109	25	29			24	22	
Length				44	,	39				25			24				,		137	642	562	480	452	452			592	55	65			63	58	
Sex																				щ	Σ	Σ	Σ	Ш			Σ							
Species	(2) GREEN FROG	(3) RED-SPOTTED NEWT	(2) RED-SPOTTED NEWT	RED-SPOTTED NEWT	(2) RED-SPOTTED NEWT	RED-SPOTTED NEWT	(3) RED-SPOTTED NEWT	(9) GREEN FROG	(4) RED-SPOTTED NEWT	S. LEOPARD FROG	(4) GREEN FROG	S. LEOPARD FROG	S. LEOPARD FROG	(2) S. LEOPARD FROG	RED-SPOTTED NEWT	RED-SPOTTED NEWT	(6) GREEN FROG	GREEN FROG	W. LESSER SIREN	MIDLAND WATER SNAKE	MIDLAND WATER SNAKE	MIDLAND WATER SNAKE	N. WATER SNAKE	MIDLAND WATER SNAKE	(18) BRONZE FROG	(4) BRONZE FROG	MIDLAND WATER SNAKE	BRONZE FROG	GREEN FROG	(3) RED-SPOTTED NEWT	RED-SPOTTED NEWT	GREEN FROG	GREEN FROG	SPRING PEEPER
Trap #	2	2	2	1	1	1	1	1	2	2	2	2	1	1	2	2	1	2	1	2	2	1	2	2	1	2	1	1	l	2	2	1	2	2
Year	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999
Day	13	13	13	14	14	14	14	14	14	14	14	14	15	15	15	15	15	15	15	17	17	17	20	11	11	11	10	13	19	18	18	19	19	19
Month Day	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	2	5	5	5	5	9	9	9	9	9	9	9	9	9	9	9	9
Mile Post	3098	3098	3098	3098	3098	3098	3098	3098	3098	3098	3098	3098	3098	3098	3098	3098	2780	2780	2933	3384	3384	3419	3786	0127	0188	0188	0237	0826	3419	3098	3098	3370	3384	3384
Habitat	4	≤	4	4	5	≤	5	≤	5	4	4	4	≤	4	5	3	ST	ST	SW	ST	ST	ST	ST	ST	4	5	ST	4	ST	۲	4	ST	ST	ST
Physio- graphic Region	FLHI	FLHI	FH	FIE	FLHI	FLH	FLHI	FLHI	FLH	FLHI	FEH	FIH	FIH	FLH	FIH	FIH	EH	FLHI	FLH	WTPL	WTPL	WTPL	WTPL	MAPL	MAPL	MAPL	MAPL	LLPH	POHI	FIE	표교	WTPL	WTPL	WTPL
Eco- system Province	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	-	-	-	-	3	3	3	3	4	4	4
State	A	AL	A.	¥	AL.	Æ	AL.	¥	¥	¥	A.	AL	¥	A	AL	A.	MS	MS	MS	A	¥	N.	Z	MS	MS	MS	MS	MS	MS	A.	¥	A	AL	AL
Park	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR

Minnow Trap Database

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Notes		TADPOLE					TADPOLE	TADPOLE					TADPOLE				TADPOLE		TADPOLE	TADPOLE			TADPOLE	AQUATIC ADULT	AQUATIC ADULT	NEOTENIC	NEOTENIC	TADPOLE				TADPOLE	TADPOLE		TADPOLE
Reproductive																								,											
Weight			29	27	2	2			4		29	3		6	27	262		7			102	158		2	2	2	2		1	1				13	
Sex Length Weight			265	09	22	23			183		193	44		62	61	150		49			290	580		44	43	36	36		24	21				. 50	
Sex									Н							Σ		F				Щ												Ш	
Species		S. LEOPARD FROG	W. LESSER SIREN	BRONZE FROG	S. LEOPARD FROG	S. LEOPARD FROG	(7) S. LEOPARD FROG	(2) S. LEOPARD FROG	MIDLAND WATER SNAKE	N. CRICKET FROG	THREE-TOED AMPHIUMA	RED-SPOTTED NEWT	(2) BRONZE FROG	RED-SPOTTED NEWT	BRONZE FROG	YELLOW-BELLIED WATER SNAKE	BRONZE FROG	RED-SPOTTED NEWT	(6) BRONZE FROG	BRONZE FROG	W. LESSER SIREN	MIDLAND WATER SNAKE	(15) S. LEOPARD FROG	RED-SPOTTED NEWT	RED-SPOTTED NEWT	RED-SPOTTED NEWT	RED-SPOTTED NEWT	(22) S. LEOPARD FROG	S. LEOPARD FROG	S. LEOPARD FROG	BRONZE FROG	GREEN FROG	(2) GREEN FROG	GREEN FROG	(8) GREEN FROG
Trap #	:	2	-	2	2	2	-	2	2	2	1	1	1	1	1	2	1	2	1	1	1	2	1	1	1	1	2	2	2	2	1	1	2	2	2
Year		1999	1999	1999	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Day		8	10	12	25	25	27	27	30	2.	1	3	3	1	7	3	1	9	7	12	14	14	15	15	15	15	15	15	15	15	17	18	18	18	9
Month Day		1	11	11	4	4	4	4	4	5	2	2	5	2	2	5	5	2	2	2	2	5	5	5	2	2	2	5	5	5	5	5	5	5	5
Mile		3419	2933	2148	0465	0465	0465	0465	1044	1185	1201	1201	1201	1222	1222	1222	1241	1594	1589	2529	2933	2933	3098	3098	3098	3098	3098	3098	3098	3098	3419	3385	3385	3419	3419
Habitat		ST	SW	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	SW	SW	SW	ST	ST	SW	ST	SW	SW	Ы	Ŋ	۲	ΓA	4	4	4	Z	ST	ST	ST	ST	ST
Physio- graphic	Region	WTPL	WTPL	FLAT	LOHI	LOHI	LOHI	LOHI	JAPR	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	BLPR	FLHI	FLHI	FLHI	FLHI	FLHI	FLHI	FLH	FI	FIH	FLHI	WTPL	WTPL	WTPL	WTPL	WTPL
Eco- system	Province	4	4	3	2	2	2	2	က	3	က	3	3	က	က	3	3	3	3	3	က	က	3	က	3	က	က	3	3	3	4	4	4	4	4
State		Z.	N	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	٩F	AL	AL	AL	AL.	AL.	A.	AL	Z	AL.	AL	N	Z
Park	T	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR

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Park State Eco-		Physio-	Habitat	Mile	Month Day	Day	Year	Trap	Species	Sex	Length	Weight	Sex Length Weight Reproductive	Notes
system graphic	graphic			Post				#					Condition	
Province Region	Regior	َ ا												
4 WTPL	WTPL		ST	3419	2	19	2000	1	BULL FROG					TADPOLE
4 WTPL	WTPL	١.	ST	3419	9	19	2000	1	N. WATER SNAKE	Т	925	104		
4 WTPL	WTPL	Ι.	ST	3419	9	19	2000	2	GREEN FROG					TADPOLE
1 MAPL	MAPL	1	Z	0188	9	-	2000	1	(7) BRONZE FROG					TADPOLES
4 WTPL	WTPL	Ι.	ST	3419	9	8	2000	2	(3) BULLFROG					TADPOLES
4 WTPL	WTPL	Ι.	ST	3419	9	8	2000	2	(3) S. LEOPARD FROG					TADPOLES
4 WTPL	WTPL	Ι,	ST	3419	9	6	2000	2 .	(7) BULLFROG					TADPOLES
4 WTPL	WTP	٦	ST	3419	9	6	2000	2	(2) S. LEOPARD FROG					TADPOLES

																								•										\neg	
Notes																									9										
Sex Length Weight Reproductive																																			
Weight		2530	3150	620	798	924	763	610	1110	621	1145	1060	136	750	783	1083	1221	1058	530	923	144	643	614	1085	639	728	1190	1151	1126	759	743	1045	265	683	1215
Length		327	326	163	180	187	152	132	201	103	206	205	97	150	152	205	209	207	163	197	93	141	136	201	136	138	205	201	198	148	139	188	133	143	206
Sex		ட	Σ			ഥ	Σ	Σ	ш	Σ	щ	Ļ.		Σ	Σ	ட	щ	Щ				Σ	Σ	ட	Σ	Σ	ட	ட	ഥ	Σ	Σ	<u>ц</u>	Σ	Σ	닠
Species		COMMON SNAPPING TURTLE	COMMON SNAPPING TURTLE	CHICKEN TURTLE	SMOOTH SHOFTSHELL TURTLE	RED-EARED SLIDER	STINKPOT	RED-EARED SLIDER	SMOOTH SHOFTSHELL TURTLE	SMOOTH SHOFTSHELL TURTLE	EASTERN MUD TURTLE	RED-EARED SLIDER																							
Year		1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999
Day		27	9	12	12	12	12	12	16	16	16	16	17	17	17	17	17	17	17	17	17	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Month Day		4	2	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	11	11	11	11	11	11	11	11	11	11	11	11	7	7
Mile Post		0834	0194	1044	1044	1044	1044	1044	1284	1284	1284	1284	1284	2789	2789	2789	2789	2789	2789	2789	2789	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640
Habitat		LA	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ΓA	ΓA	ΓY	ΓY	LA	۲	4	Y	ΓY	ΓA	ΓA	LA	4	4
Physio- graphic	Region	LLPH	MAPL	JAPR	JAPR	JAPR	JAPR	JAPR	NCMH	NCMH	NCMH	NCMH	NCMH	FLHI	FLHI	FLHI	FLHI	FLHI	FLHI	FLHI	FLHI	BLPR													
Eco- system	ю	3	-	3	3	3	3	3	3	3	က	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	က	3	3	3	3	3	3
tate		MS	MS	SW	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS
Park State		NATR	NATR	NATR	1		NATR		NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR		NATR

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		T	T																														
Notes																																	
Sex Length Weight Reproductive	Colldition																						,										
Weight		512	498	812	913	578	1211	1137	731	685	629	1140	649	859	618	712	698	1183	1210	1173	520	540	603	490	1235	973	685	658	628	1198	1189	1138	895
Length		136	133	181	196	169	212	201	203	146	197	196	168	182	164	171	173	206	203	206	103	126	125	118	208	189	126	132	103	208	206	198	188
Sex		Σ	≥				L	Н	ц	Σ	ட	ட	ᄔ		Σ	ш	Н	ц	ц	ш	Σ	Σ	Σ	Σ	ட	Ŧ	Σ	Σ	Σ	止	ட	ப	Σ
Species		S PAINTED THRTHE	S. PAINTED TURTLE	SMOOTH SOFTSHELL TURTLE	SMOOTH SOFTSHELL TURTLE	SMOOTH SOFTSHELL TURTLE	SMOOTH SOFTSHELL TURTLE	RED-EARED SLIDER	CHICKEN TURTLE	RED-EARED SLIDER	RED-EARED SLIDER	RED-EARED SLIDER	S. PAINTED TURTLE	CHICKEN TURTLE	RED-EARED SLIDER	CHICKEN TURTLE	RED-EARED SLIDER	SMOOTH SOFTSHELL TURTLE															
Year		1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Day		σ	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	28	28	28	28	2	2	2	7	2	2	2	7	7	2	7	7
Month Day		11	=	=	17	11	11	7	7	1	11	7	=	11	17	11	11	4	4	4	4	2	5	5	5	5	2	5	2	5	9	9	9
Mile	Post	2640	2640	2640	2640	2640	2640	2859	2859	2859	2859	2859	2859	2859	2859	2859	2859	0376	0376	0376	0376	1136	1136	1136	1136	1284	1284	1284	1284	1284	2640	2640	2640
Habitat		٥	5	4	4	4	4	Z	4	4	4	4	4	₹	4	P	4	⊴	4	4	Y	4	۲	ΓĄ	۲	ST	ST	ST	ST	ST	ΓA	۲	4
T.	graphic	RI PR	BI PR	BLPR	BLPR	BLPR	BLPR	HH	HH	핊	FLH	HH	HH	FIH	HH	FLHI	FLHI	FOHI	LOHI	FOH	LOHI	JAPR	JAPR	JAPR	JAPR	NCMH	NCMH	NCMH	NCMH	NCMH	BLPR	BLPR	BLPR
Eco-	System	204 100	0 60	3	3	က	3	3	က	က	3	3	က	3	3	3	က	2	2	2	2	က	3	3	က	3	က	33	3	က	3	3	3
State		VΜ	WS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS
Park State		NIATE	NATR	NATR	NATR	NATR	NATR	NATR	1	1	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	MATR	NATR							

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Notes	-									•												JUV.				AUV					٠	JUV.			
Reproductive Condition		displaying																																	
Sex Length Weight		4						2	10		28					2.5		7		262			12		312	5	0.5		9		7		12	6	14
Length		61						41	44		450					41		72		864			177		793	54	43		36		63		73	69	87
Sex		Σ							Σ		Σ									Σ			щ		Σ				Σ		Щ		Σ	Щ	Σ
Species		GREEN ANOLE	GREEN ANOLE	GROUND SKINK	GROUND SKINK	GROUND SKINK	S. CRICKET FROG	GROUND SKINK	AMERICAN TOAD	GROUND SKINK	SPECKLED KINGSNAKE	GROUND SKINK	BROAD-HEADED SKINK	GROUND SKINK	GROUND SKINK	SLIMY SALAMANDER	SLIMY SALAMANDER	SLIMY SALAMANDER	GROUND SKINK	S. BLACK RACER	FIVE-LINED SKINK	FIVE-LINED SKINK	BROAD-HEADED SKINK	SLIMY SALAMANDER	W. COTTONMOUTH	FIVE-LINED SKINK	SLIMY SALAMANDER	GROUND SKINK	GROUND SKINK	GROUND SKINK	SLIMY SALAMANDER	FIVE-LINED SKINK	FIVE-LINED SKINK	FIVE-LINED SKINK	S.E. FIVE-LINED SKINK
Board #		13	13	2	1	2	3	3	24	14	19	1	9	24	3	10	16	2	8	14	13	16	11	15	19	16	3	13	8	6	17	7	6	21	2
Year		1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Day			-	_		2	_	-	12	-	11	11	_	15	_	_		14			_	ω	_	_	_	_	1		2		10	10	10		15
Month Day		4	4	4	4	5	5	5	5	9	9	9	9	9	9	9	9	9	9	9	9	9	4	4	4	5	5	5	2	2	5	5	5	5	5
Mile Post		0076	9200	0734	09/0	1038	1317	2287	2767	0178	0330	0354	1054	1634	1659	1659	1659	1732	2287	2347	2347	2722	0663	0671	0781	1077	1191	1659	1732	1732	2176	2347	2347	2520	2975
Habitat		××	××	WR	WX	NN	PR	WX	XX	PR	MU	XM	XX	MC	ΧM	ΧM	XM	PR	MX	WC	MC	WX	PR	MX	PR	MC	MC	XM	PR	PR	ΧM	WC	MC	RC	H
	Region	MAPH	MAPH	LLPH	LLPH	JAPR	NCMH	BLPR	표근	MAPL	LOHI	HOT	JAPR	NCMH	NCMH	NCMH	NCMH	NCMH	BLPR	POHI	POHI	표교	LOHI	LOHI	LOHI	JAPR	NCMH	NCMH	NCMH	NCMH	FLAT	POHI	POHI	BLPR	FIE
Eco- system	Province	_	-	3	3	3	3	3	3	-	2	2	3	3	3	3	က	ဗ	3	3	က	3	2	2	2	က	3	က	3	3	3	3	3	3	3
		MS	MS	MS	MS	MS	NS	MS	VIS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	NS	NS	NS	MS	MS	MS
Park State		NATR	NATR	NATR		NATR	NATR	NATR	NATR	I	NATR	NATR	ł	1 .	NATR		NATR	L	1		NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR		NATR	l	L			NATR

Γ			Γ	Γ	Γ	Γ	Γ	Т	Τ	Γ	Τ	Ė	Γ	T	Γ	Γ	Τ	Τ	Τ	T	Γ	Γ	Τ	Т	Γ	Γ	Γ	Γ	-	Т	Г	·	Τ	Π		
Notes																					RED EFT STAGE											JUV.				
Reproductive	Condition					:																														
Sex Length Weight					7	4	9	4	2	က	1.5	123		6	10	283	478	29		146			4		3.5	3		2	1.5	3	2	4	10	18	14	19
Length					217	37	53	9	54	29	43	262		216	02	643	972	594		699			31	308	23	29		40	34	22	54	51	89	584	180	290
Sex					Щ			ட	Σ	ட	4	Σ		Σ	Σ	Σ	щ	ш		ц.				Э	М	Н				F	F		J	Σ	Σ	Щ
Species			GROUND SKINK	GROUND SKINK	E. WORM SNAKE	MOLE SALAMANDER	SLIMY SALAMANDER	BLACK KINGSNAKE	GROUND SKINK	E. WORM SNAKE	FIVE-LINED SKINK	E. HOGNOSED SNAKE	BLACK KINGSNAKE	SPECKLED KINGSNAKE	SPECKLED KINGSNAKE	CORN SNAKE	RED-SPOTTED NEWT	GROUND SKINK	GROUND SKINK	BROAD-HEADED SKINK	SLIMY SALAMANDER	FIVE-LINED SKINK	FIVE-LINED SKINK	ROUGH GREEN SNAKE	BROAD-HEADED SKINK	BROAD-HEADED SKINK										
Board	#		15	5	24	17	21	14	19	.22	22	1	8	5	13	18	17	19	4	14	14	22	13	5	16	23	15	15	1	14	16	9	10	5	3	7
Year			2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Day			15	15	15	15	15	17	17	17	17	17	17	22	22	22	22	31	1	1	1	_	2	2	3	က	က	9	9	9	9	9	9	9	7	7
Month Day			2	5	5	2	5	5	5	5	5	5	5	5	5	5	5	5	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Mile	Post		3186	3218	3240	3359	3359	3499	3499	3499	3499	3537	3537	4137	4155	4155	4194	0066	0663	0671	1054	1054	1191	1199	1659	1659	1659	2176	2210	2287	2287	2347	2367	2416	2767	2975
Habitat			MU	PR	WU	MU	MU	MX	WX	WX	WX	PR	PR	WC	PR	PR	PR	WX	PR	MX	WX	WX	MC	PR	MX	ΧM	ΧX	WC	MX	WX	WX	WC	WC	PR	××	PR
Physio-	graphic	Region	TEVA	TEVA	TEVA	MLPL	WTPL	WTPL	WTPL	WTPL	WTPL	WTPL	WTPL	NABA	NABA	NABA	NABA	MAPL	LLPH	LLPH	JAPR	JAPR	NCMH	NCMH	NCMH	NCMH	NCMH	FLAT	BLPR	BLPR	BLPR	POHI	POHI	POHI	FE	王
Eco-	system	Province	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	1	3	3	3	က	3	3	3	3	က	3	3	3	3	3	3	3	3	3
state			٩Ľ	A.	AL	AL	AL	N	N	N	N	L	N	N	N	TN	LN	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS
Park State			NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR !	NATR I	NATR	NATR !	NATR	NATR			NATR

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Notes						
Sex Length Weight Reproductive	Condition					
Weight		11	4	3	328	618
Length		98	<i>2</i> 9	29	868	1090
Sex		Ŧ		щ	ட	Σ
Species		3 N. RED SALAMANDER F	SLIMY SALAMANDER	SLIMY SALAMANDER	MOLE KINGSNAKE	000 18 SPECKLED KINGSNAKE M 1090 618
rear Board	#	3	6	15	9	18
		2000	2000	2000	2000	2000
Day		7	8	8	10	12 20
Month Day		9	9	9	9	11
Mile	Post	2722	3186	3499	4155	0180
Habitat		NM	NM	ΧM	PR	PR
Physio- Habitat	graphic Region	FLHI	TEVA	MLPL	NABA	MAPL
БС	system Province	3	4	4	4	1
State		MS	AL	N L	NL	MS
Park State		NATR MS	NATR	NATR	NATR	NATR MS

ANURAN AUDIO DATABASE

מוא - סומוני	는 상	Physio-	Habitat	Mile	Month Day	_	Year	Species	Number	Notes
	system	graphic		Post					Calling	
	Province	Region								
NATR MS	3	JAPR	MS	1104	9	12	1999	BRONZE FROG	-	AUDIO IDENTIFICATION
NATR MS	3	JAPR	MS	1104	9	12	1999	S. CRICKET FROG	-	AUDIO IDENTIFICATION
NATR MS	3	NCMH	lS	1737	9	15	1999	S. CRICKET FROG	က	AUDIO IDENTIFICATION
	3	FIH	SW	2933	9	17	1999	N. CRICKET FROG	4+	AUDIO IDENTIFICATION
	3	FIH	MS	2933	9	17	1999	BULLFROG	-	AUDIO IDENTIFICATION
\vdash	4	WTPL	ST	3419	9	18	1999	GREEN FROG	4+	AUDIO IDENTIFICATION
	4	WTPL	ST	4076	9	21	1999	GREEN FROG	4+	AUDIO IDENTIFICATION
<u> </u>	-	MAPL	4	0188	4	25	2000	S. CRICKET FROG	_	AUDIO IDENTIFICATION
NATR MS	-	MAPL	ΓĄ	0188	4		2000	BULLFROG	2	AUDIO IDENTIFICATION
	-	MAPL	Z	0188	4	25	2000	BRONZE FROG	_	AUDIO IDENTIFICATION
-	_	MAPL	Υ	0188	4		2000	S. CRICKET FROG	-	AUDIO IDENTIFICATION
-	2	LOHI	Y	0304	4	_	2000	BIRD-VOICED TREE FROG	4+	AUDIO IDENTIFICATION
NATR MS	3	LLPH	SW	0890	4	28	2000	BIRD-VOICED TREE FROG	4+	AUDIO IDENTIFICATION
\vdash	3	LLPH	ST	0735	4		2000	BRONZE FROG	4+	AUDIO IDENTIFICATION
\vdash	3	LLPH	ST	0735	4	28	2000	BULLFROG	4+	AUDIO IDENTIFICATION
	က	NCMH	ST	1241	9	1	2000	BRONZE FROG	2	AUDIO IDENTIFICATION
NATR MS	3	NCMH	MS	1589	2	9	2000	GRAY TREE FROG	2	AUDIO IDENTIFICATION
NATR MS	3	NCMH	WR	1860	5		2000	S. CRICKET FROG	3	AUDIO IDENTIFICATION
	3	NCMH	WR	1970	5	8	2000	BULLFROG	-	AUDIO IDENTIFICATION
NATR MS	3	NCMH	WR	1970	2	8	2000	BIRD-VOICED TREE FROG	4+	AUDIO IDENTIFICATION
_	က	NCMH	ST	1807	2	12	2000	GRAY TREE FROG	က	AUDIO IDENTIFICATION
NATR MS	3	BLPR	MN	2705	2	13	2000	GRAY TREE FROG	2	AUDIO IDENTIFICATION
NATR MS	3	FLHI	nm.	2895	9	13	2000	N. CRICKET FROG	က	AUDIO IDENTIFICATION
	က	FLHI	ΩM	2933	2	14	2000	GRAY TREE FROG	-	AUDIO IDENTIFICATION
NATR MS	3	FLH	WR	3020	2	15	2000	GREEN FROG	3	AUDIO IDENTIFICATION
NATR AL	3	FIH	MS	3095	2	15	2000	BULLFROG	-	AUDIO IDENTIFICATION
NATR TN	4	WTPL	WR	3900	2	23	2000	GRAY TREE FROG	4+	AUDIO IDENTIFICATION
NATR MS	2	FOHI	WR	0548	2	30	2000	SQUIRREL TREE FROG	-	AUDIO IDENTIFICATION
_	2	LOHI	WR	0330	2	31	2000	SQUIRREL TREE FROG	-	AUDIO IDENTIFICATION
	က	JAPR	۲	1083	9	1	2000	S. CRICKET FROG	4+	AUDIO IDENTIFICATION
_	က	NCMH	SW	1268	9	1	2000	N. CRICKET FROG	4+	AUDIO IDENTIFICATION
NATR MS	က	NCMH	WR	1763	9	3	2000	GRAY TREE FROG	2	AUDIO IDENTIFICATION
NATR MS	3	NCMH	WX	1504	9	5	2000	SQUIRREL TREE FROG	က	AUDIO IDENTIFICATION
NATR MS	3	NCMH	WX	1504	9	5	2000	S. LEOPARD FROG		AUDIO IDENTIFICATION

Park	State	Eco-	Physio- Habitat		Mile	Month Day Year	Day	Year	Species	Number	Notes
		system	graphic		Post					Calling	
		Province	Region								
NATR	SW	3	NCMH	WR	1541	9	2	2000	GREEN TREE FROG	4+	AUDIO IDENTIFICATION
NATR	MS	3	NCMH	WR	1533	9	2	2000	S. LEOPARD FROG	3	AUDIO IDENTIFICATION
NATR	MS	3	NCMH	SW	1550	9	2	2000	E. NARROW-MOUTHED TOAD	4+	AUDIO IDENTIFICATION
NATR	MS	3	NCMH	MS	1551	9	2	2000	BIRD -VOICED TREE FROG	4+	AUDIO IDENTIFICATION
NATR	MS	3	NCMH	MS	1551	9	2	2000	GREEN TREE FROG	4+	AUDIO IDENTIFICATION
NATR	MS	3	NCMH	SW	1551	9	5	2000	S. CRICKET FROG	4+	AUDIO IDENTIFICATION
NATR	MS	3	NCMH	NM	1553	9	2	2000	S. LEOPARD FROG	2	AUDIO IDENTIFICATION
NATR	MS	3	NCMH	MX	1575	9	2	2000	SQUIRREL TREE FROG	1	AUDIO IDENTIFICATION

Notes					SONNING ON LOGS	SON NO SO									NO TAIL					-																
Length Weight Reproductive Condition									GRAVID		GRAVID	GRAVID				DISPLAYING													GRAVID							
Weight	44	316	31	436			9	201	1085	9	385	1235	302	195			409	155	264		138		285		195	430	326	350	925	·		340			362	358
Length	02	143	98	140			99	901	206	36	192	205	116	903	139		105	89	920		119		834		830	170	800	132	239			126			128	864
Sex	M	Σ	Σ	Σ				Σ	ч		ц	ч	Σ	Σ	Σ	Σ	Ŧ	Ь	Σ				Σ		ட	Σ	ட	Σ	Ŧ			Σ			Σ	Σ
Species	AMERICAN TOAD	THREE-TOED BOX TURTLE	FIVE-LINED SKINK	THREE-TOED BOX TURTLE	CHICKEN TURTLE	MISSISSIPPI MAP TURTLE	GREEN ANOLE	CORN SNAKE	RED-EARED SLIDER	RED-EARED SLIDER	RED-EARED SLIDER	RED-EARED SLIDER	THREE-TOED BOX TURTLE	CORN SNAKE	BROAD-HEADED SKINK	GREEN ANOLE	THREE-TOED BOX TURTLE	E. MUD TURTLE	MUD SNAKE	S. COPPERHEAD	ALLIGATOR SNAPPING TURTLE	S. BLACK RACER	CORN SNAKE	SPECKLED KINGSNAKE	SPECKLED KINGSNAKE	RED-EARED SLIDER	YELLOW-BELLIED WATER SNAKE	THREE-TOED BOX TURTLE	1	(2) BRONZE FROG	(3) BULLFROG	THREE-TOED BOX TURTLE	THREE-TOED BOX TURTLE		THREE	CORN SNAKE
Year	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999
Day	19	20	20	21	21	21	21	22	22	22	22	22	23	23	23	23	24	24	24	24	24	24	24	24	24	24	24	25	25	25	25	25	25	25	26	26
Month	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Mile Post	0600	0900	0180	0160	0180	0180	0040	0310	0380	0460	0280	0380	0190	0190	0180	0380	0460	0480	0480	0490	0230	0220	0280	0890	0200	0720	0220	0610	0650	0220	0220	0740	0230	0360	0540	0520
Habitat	MX			WR.	ΓĄ	Υ	WR	MU	MX	WR	MU	WR	ΧM	MX	۲	WR	۲	WB	WB	MN	WR	XX		MX		MX	MU	MX	MX	ST	ST	MX				XX
Physio- graphic Region	MAPL	MAPL	MAPL	MAPL	MAPL	MAPL	MAPL	LOHI	IHOT	HOT	LOHI	LOHI	MAPL	MAPL	MAPL	LOHI	HOT	FOHI	LOHI	LOHI	HOT	FOH	LOHI	LLPH	LLPH	LLPH	LLPH	LOHI	LOHI	LLPH	LLPH	LLPH	LOHI	LOHI	징	LOHI
Eco- system Province	1	-	-	-	1	-	-	2	2	2	2	2	-	1	-	2	2	2	2	2	2	2	2	3	3	3	3	2	2	3	3	3	2	2	2	2
State	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS
Park	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR

Notes	-							JUV.	SWIMMING IN POND	.VUL									SUNNING ON LOG				2 FT. SUNNING													
Length Weight Reproductive Condition	-																					GRAVID			GRAVID			•								
Weight			151			8	412	12		12	375	84	128	9	-	-						1328			226	-	1.5	1.5	1.5	5	88	186	343	157	790	229
Length			852			314	55	71		42	119	440	88	300		12						204			806	22	23	18	22	334	622	122	118	98	182	104
Sex			Σ			Σ	Σ				Σ	Σ	щ									Ш			ш					М	Σ	Σ	Σ	F		Σ
Species	S. BLACK RACER	CORN SNAKE	S. BLACK RACER	RED-EARED SLIDER	GREEN ANOLE	ROUGH GREEN SNAKE	THREE-TOED BOX TURTLE	FIVE-LINED SKINK	W. COTTONMOUTH	RED-EARED SLIDER	THREE-TOED BOX TURTLE	S. COPPERHEAD	E. MUD TURTLE	ROUGH GREEN SNAKE	YELLOW-BELLIED WATER SNAKE	S. CRICKET FROG	(13) S. CRICKET FROG	W. COTTONMOUTH	SMOOTH SOFTSHELL TURTLE	S. CRICKET FROG	(6) SPRING PEEPER	RED-EARED SLIDER	AMERICAN ALLIGATOR	S. BLACK RACER	S. BLACK RACER	S. CRICKET FROG	S. CRICKET FROG	S. CRICKET FROG	UPLAND CHORUS FROG	ROUGH GREEN SNAKE	E. GARTER SNAKE	THREE-TOED BOX TURTLE	THREE-TOED BOX TURTLE	THREE-TOED BOX TURTLE	RED-EARED SLIDER	THREE-TOED BOX TURTLE
Year	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999
Day	26	26	26	26	26	22	22	22	27	27	28	28	28	28	28	28	28	29	30	30	30	30	30	30	1	-	2	2	2	3	4	4	5	2	2	9
Month	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	2	2	5	2	5	2	5	5	5	5	2
Mile Post	0200	0460	0650	0200	0820	0220	0810	0830	0830	0820	0820	0220	0820	1040	1080	1180	1180	1550	1250	1240	1260	1280	1340	1140	1360	1170	1180	1180	1180	1680	1840	1680	1920	1910	1840	1670
Habitat	∩ ≪	WR	MU	WR	WR	ΧM	MU	Ą	Y	Y	ΩM	ΩM	Y	WR	4	ST	ST	SW	ST	ST	WB	WB	WB	×	ΧM	ST	ST	ST	ST	ST	××	XX	XM	××	XX	XM
Physio- graphic Region	디어된	LOHI	LOHI	LLPH	LLPH	LLPH	LLPH	LLPH	LLPH	LLPH	LLPH	LLPH	LLPH	JAPR	JAPR	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	JAPR	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH
Eco- system Province	2	2	2	3	က	3	3	3	က	က	3	8	က	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	Ŕ	3	3	3	3	3	က	3
State	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS
Park	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR

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Notes																SUNNING ON LOG	SUNNING ON LOG				SUNNING ON LOG	SUNNING ON SHORE														
Length Weight Reproductive Condition									GRAVID																	GRAVID			GRAVID	GRAVID						
Weight	91		156		568	202	176	153	1832	490	28	125	348	191	548			1.5	129				62		28	461	124		1325	421	337	140		27		257
Length	78		206		1060	809	808	801	230	1008	305	809	1000	102	158			22	26				219		98	128	640		233	122	913	909		401		903
Sex	Σ		Т	-	M	F	Μ	Ŧ	ч	Σ	Σ	ч	Σ	Σ	Σ				Σ				Σ			ш	ш		ഥ	ц	Σ	щ	Σ	⋝		≥
Species	THREE-TOED BOX TURTLE	S. BLACK RACER	CORN SNAKE	DIAMONDBACK WATER SNAKE	CORN SNAKE	S. COPPERHEAD	S. BLACK RACER	GRAY RATSNAKE	RED-EARED SLIDER	GRAY RATSNAKE	YELLOW-BELLIED WATER SNAKE	MUD SNAKE	CORN SNAKE	THREE-TOED BOX TURTLE	RED-EARED SLIDER	RED-EARED SLIDER	SMOOTH SOFTSHELL TURTLE	S. LEOPARD FROG	E. BOX TURTLE	DIAMONDBACK WATER SNAKE	(6) RED-EARED SLIDER	SMOOTH SOFTSHELL TURTLE	BROAD-HEADED SKINK	CORN SNAKE	E. FENCE LIZARD	E. BOX TURTLE	CORN SNAKE	N. BLACK RACER	RED-EARED SLIDER	E. BOX TURTLE	CORN SNAKE	CORN SNAKE	BROAD-HEADED SKINK	N. BLACK RACER		BLACK KINGSNAKE
Year	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	199	1999	1999	1999	1999	1999	1999	1999
Day	9	9	9	7	7	7	7	æ	10	10	11	11	12	12	12	12	12	12	13	13	13	13	13	14	14	16	16	16	16	16	17	17	17	17	17	17
Month	5	5	2	5	5	5	5	2	5	5	5	5	5	5	5	5	2	5	5	2	5	2	5	5	5	5	5	5	2	5	5	5	5	5	5	5
Mile Post	1910	1900	1720	2080	2160	2140	1960	2280	2360	2420	2460	2460	2690	2590	2520	2530	2530	2530	2930	2920	2850	2780	2770	3030	2990	3190	3230	3230	3260	3240	3560	3580	3620	3550	3530	3390
Habitat	ΧM	××	XM	WB	PR	XM	ΑF	XX	NM	WR	SW	ΧM	ΧM		AF	ST	ST	ST	XM	ST	4	Y.	ΧM	MX	MX	ΧM	NM	ΠM	AF	NM	XX	XX	WR	MU	MU	ST
Physio- graphic Region	NCMH	NCMH	NCMH	NCMH	FLAT	FLAT	NCMH	BLPR	POHI	POHI	POHI	POHI	BLPR	BLPR	BLPR	BLPR	BLPR	BLPR	FLHI	FLHI	HH	FIH	FLHI	FLHI	FLHI	TEVA	TEVA	TEVA	WTPL	TEVA	WTPL	WTPL	WTPL	WTPL	WTPL	WTPL
Eco- system Province	3	3	3	3	3	3	3	3	3	3	3	က	က	က	က	က	က	က	က	က	3	3	က	3	က	4	4	4	4	4	4	4	4	4	4	4
State	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	AL	AL	AL.	AL	AL	Z	Z	N	N	N 	AL
Park	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR

	BOX TURTL ENCE LIZAF E			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	17 1999 1999 1999 20 1999 21 22 23 23 23 23 24 25 26 27 28 39 22 499 23 499 8 1999	5 17 1999 5 19 1999 5 19 1999 5 20 1999 5 21 1999 5 21 1999 5 22 1999 5 22 1999 5 22 1999 6 8 1999 6 8 1999 6 8 8 1999	3630 5 17 1999 3450 5 19 1999 3860 5 19 1999 3860 5 19 1999 3620 5 20 1999 3620 5 21 1999 3700 5 21 1999 3750 5 21 1999 3850 5 22 1999 3990 5 22 1999 4210 5 22 1999 4210 5 22 1999 4270 6 8 1999 4270 6 8 1999 4270 6 8 1999	AA 3630 5 17 1999 WU 3450 5 19 1999 WR 3860 5 19 1999 WU 3620 5 20 1999 WU 3970 5 21 1999 WU 4020 5 21 1999 WU 3850 5 21 1999 WU 3990 5 22 1999 WU 3990 6 22 1999	3630 5 17 1999 3450 5 19 1999 3860 5 19 1999 3860 5 19 1999 3620 5 20 1999 3620 5 21 1999 3700 5 21 1999 3750 5 21 1999 3850 5 22 1999 3890 5 22 1999 4210 5 22 1999 4210 6 8 1999 4250 6 8 1999 4250 6 8 1999	AA 3630 5 17 1999 WU 3450 5 19 1999 WK 3860 5 19 1999 WU 3620 5 20 1999 WU 3620 5 21 1999 WU 3970 5 21 1999 WU 3850 5 21 1999 WU 3850 5 21 1999 WU 3990 5 22 1999 WU 3990 5 22 1999 WU 3990 5 22 1999 WU 3990 6 22 1999 WK 4210 5 22 1999 WK 4210 6 8 1999 WU 4250 6 8 1999
	E. BOX TURTLE E. BOX TURTLE E. FENCE LIZARD N. BLACK RACER E. FENCE LIZARD I.ACK KINGSNAKI S. LEOPARD FRC N. BLACK RACER N. BLACK RACER N. BLACK RACER E. FENCE LIZARD FOWLER'S TOAD FOWLER'S			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	10 1999 10 1999 10 1999 11 1999 12 1999 13 1999 14 1999 15 1999 16 1999 17 1999 18 1999 18 1999 18 1999 18 1999 18 1999	5 17 1999 5 19 1999 5 20 1999 5 21 1999 5 21 1999 5 22 1999 5 22 1999 5 22 1999 6 8 1999 6 8 1999 6 8 1999	3630 5 17 1999 3450 5 19 1999 3860 5 19 1999 3860 5 19 1999 3620 5 20 1999 3620 5 21 1999 3700 5 21 1999 3750 5 21 1999 3850 5 22 1999 3990 5 22 1999 4210 5 22 1999 4210 5 22 1999 4210 6 8 1999 4250 6 8 1999	WA 3630 5 17 1999 WU 3450 5 19 1999 WR 3860 5 19 1999 WU 3620 5 20 1999 WU 3620 5 21 1999 WU 3700 5 21 1999 WU 3750 5 21 1999 WU 3850 5 22 1999 WU 3990 5 22 1999 WU 3990 5 22 1999 WR 3890 5 22 1999 WR 3890 5 22 1999 WR 4210 5 23 1999 WU 4370 6 8 1999	WA 3630 5 17 1999 WU 3450 5 19 1999 WR 3860 5 19 1999 WU 3620 5 20 1999 WU 3620 5 21 1999 WU 3750 5 21 1999 WU 3750 5 21 1999 WU 3850 5 22 1999 WU 3990 5 22 1999 WR 4210 5 22 1999 WU 4370 6 8 1999 WU 4370 6 8 1999 WU 4370 6 8 1999	WTPL WU 3450 5 17 1999 WTPL WR 3860 5 19 1999 WTPL WR 3860 5 19 1999 WTPL WU 3620 5 20 1999 WTPL WU 3620 5 21 1999 WTPL WU 3750 5 21 1999 WTPL WU 3750 5 21 1999 WTPL WU 3850 5 21 1999 WTPL WU 3850 5 21 1999 WTPL WU 3990 5 22 1999 WTPL WU 3990 6 8 1999
	ENCE LI LACK R ENCE LI ENCE LI ENCE LI LACK R LACK R LACK R LACK R VLER'S VLER'			1999 1999 1999 1999 1999 1999 1999 199	19 1999 20 1999 21 1999 21 1999 21 1999 21 1999 22 1999 22 1999 23 1999 8 1999 8 1999	5 19 1999 5 20 1999 5 20 1999 5 21 1999 5 21 1999 5 21 1999 5 22 1999 5 22 1999 5 22 1999 6 8 1999 6 8 1999	3860 5 19 3860 5 19 3820 5 20 3620 5 20 3620 5 20 3990 5 21 4020 5 21 3750 5 21 3750 5 21 3850 5 21 3990 5 22 3990 5 22 3890 5 22 3890 5 22 4210 5 23 4370 6 8 4250 6 8	WR 3860 5 19 1999 WR 3860 5 19 1999 WU 3620 5 20 1999 WU 3620 5 21 1999 WU 3970 5 21 1999 WU 3750 5 21 1999 WU 3850 5 21 1999 WU 3890 5 22 1999 WU 3990 6 22 1999	WR 3860 5 19 1999 WR 3860 5 19 1999 WU 3620 5 20 1999 WU 3870 5 21 1999 WU 4020 5 21 1999 WU 3750 5 21 1999 WU 3850 5 21 1999 WU 3890 5 22 1999 WU 3990 5 22 1999 WU 4210 5 23 1999 WR 4210 5 23 1999 WU 4370 6 8 1999 WU 4250 6 8 1999	WTPL WR 3860 5 19 1999 WTPL WR 3860 5 19 1999 WTPL WU 3620 5 20 1999 WTPL WU 3620 5 20 1999 WTPL WU 4020 5 21 1999 WTPL WU 4200 5 21 1999 WTPL WU 3850 5 22 1999 WTPL WU 3990 5 22 1999 WTPL WU 3890 5 22 1999 WTPL WU 3890 5 22 1999 WABA WK 4210 5 23 1999 NABA
	ENCE LI LACK R. EOPARI LACK R. LACK R. LACK R. VLER'S VLER'S WLER'S WLER'S WLER'S WLER'S WLER'S WLER'S			1999 1999 1999 1999 1999 1999 1999 199	19 1999 20 1999 21 1999 21 1999 21 1999 22 1999 22 1999 22 1999 22 1999 22 1999 23 1999 8 1999 8 1999	5 19 1999 5 20 1999 5 21 1999 5 21 1999 5 21 1999 5 22 1999 5 22 1999 5 22 1999 5 22 1999 6 8 1999 6 8 1999	3860 5 19 1999 3620 5 20 1999 3620 5 20 1999 3620 5 21 1999 4020 5 21 1999 3750 5 21 1999 3850 5 22 1999 3990 5 22 1999 3890 5 22 1999 4210 5 22 1999 4270 6 8 1999 4270 6 8 1999 4270 6 8 1999	WR 3860 5 19 1999 WU 3620 5 20 1999 WU 3620 5 20 1999 WU 3620 5 21 1999 WU 4020 5 21 1999 WU 3750 5 21 1999 WU 3850 5 22 1999 WU 3990 5 22 1999 WU 3990 5 22 1999 WR 3890 5 22 1999 WR 3890 5 22 1999 WR 4210 5 23 1999 WU 4370 6 8 1999 WU 4250 6 8 1999	WR 3860 5 19 1999 WU 3620 5 20 1999 WU 3620 5 20 1999 WU 3070 5 21 1999 WU 3750 5 21 1999 WU 3850 5 21 1999 WU 3990 5 22 1999 WU 3990 5 22 1999 WU 3990 5 22 1999 WR 3890 5 22 1999 WR 4210 5 22 1999 WU 3990 5 22 1999 WR 4210 5 22 1999 WU 4370 6 8 1999 WU 4250 6 8 1999	WTPL WR 3860 5 19 1999 WTPL WU 3620 5 20 1999 WTPL WU 3620 5 20 1999 WTPL WU 4020 5 21 1999 WTPL WU 3750 5 21 1999 WTPL WU 3850 5 21 1999 WTPL WU 3890 5 22 1999 WTPL WU 3990 5 22 1999 NABA WK 4210 5 23 1999 NABA WU 4250 6 8 1999 NABA
	LACK RENCE LI ENCE LI ENCE LI LACK RENCE LI LACK RENCE LI LACK RENCE LI RENCE LI RER'S VLER'S			1999 1999 1999 1999 1999 1999 1999 199	20 1999 20 1999 21 1999 21 1999 21 1999 22 1999 22 1999 22 1999 8 1999 8 1999	5 20 1999 5 20 1999 5 21 1999 5 21 1999 5 21 1999 5 22 1999 5 22 1999 5 22 1999 5 22 1999 6 8 1999 6 8 1999	3620 5 20 1999 3620 5 20 1999 3970 5 21 1999 4020 5 21 1999 3700 5 21 1999 3850 5 21 1999 4200 5 22 1999 3990 5 22 1999 3890 5 22 1999 4210 5 22 1999 4370 6 8 1999 4450 6 8 1999	WU 3620 5 20 1999 WU 3620 5 20 1999 WU 3970 5 21 1999 WU 4020 5 21 1999 WU 3750 5 21 1999 WU 3850 5 21 1999 WU 3990 5 22 1999 WU 3990 5 22 1999 WU 3890 5 22 1999 WR 3890 5 22 1999 WR 4210 5 23 1999 WU 4270 6 8 1999 WU 4250 6 8 1999	WU 3620 5 20 1999 WU 3620 5 20 1999 WU 4020 5 21 1999 WU 4020 5 21 1999 WU 3750 5 21 1999 WU 3850 5 22 1999 WU 3990 5 22 1999 WU 3990 5 22 1999 WU 3990 5 22 1999 WR 4210 5 22 1999 WU 4370 6 8 1999 WU 4250 6 8 1999 WU 4260 6 8 1999	WTPL WU 3620 5 20 1999 WTPL WU 3620 5 20 1999 WTPL WU 4020 5 21 1999 WTPL WU 4020 5 21 1999 WTPL WU 3750 5 21 1999 WTPL WU 3850 5 22 1999 WTPL WU 3990 5 22 1999 WTPL WU 3890 5 22 1999 WABA WR 4210 5 23 1999 NABA WU 4370 6 8 1999 NABA
	NOE LI NOE LI KING ACK R ACK R ACK R ACK R ILER'S 1LER'S OX TUI OX TUI O			1999 1999 1999 1999 1999 1999 1999 199	20 1999 21 1999 21 1999 21 1999 22 1999 22 1999 22 1999 8 1999 8 1999	5 20 1999 5 21 1999 5 21 1999 5 21 1999 5 22 1999 5 22 1999 5 22 1999 5 22 1999 6 8 1999 6 8 1999	3620 5 20 1999 3970 5 21 1999 4020 5 21 1999 3700 5 21 1999 3750 5 21 1999 4200 5 22 1999 3990 5 22 1999 3890 5 22 1999 4210 5 22 1999 4270 6 8 1999 4250 6 8 1999	WU 3620 5 20 1999 WU 3970 5 21 1999 WU 4020 5 21 1999 WU 3750 5 21 1999 WU 3850 5 21 1999 WU 3990 5 22 1999 WU 3990 5 22 1999 WU 3890 5 22 1999 WR 3890 5 22 1999 WR 4210 5 23 1999 WU 4370 6 8 1999 WU 4250 6 8 1999	WU 3620 5 20 1999 WU 3970 5 21 1999 WU 4020 5 21 1999 WU 3750 5 21 1999 WU 3850 5 21 1999 WU 3990 5 22 1999 WU 3990 5 22 1999 WU 3990 5 22 1999 WR 3890 5 22 1999 WR 4210 5 22 1999 WU 4370 6 8 1999 WU 4250 6 8 1999 WU 4260 6 8 1999	WTPL WU 3620 5 20 1999 WTPL WU 3970 5 21 1999 WTPL WU 4020 5 21 1999 WTPL WU 3750 5 21 1999 WTPL WU 3850 5 21 1999 WTPL WU 3990 5 22 1999 WTPL WU 3890 5 22 1999 NABA WK 4210 5 23 1999 NABA WU 4370 6 8 1999 NABA WU 4250 6 8 1999
	NCE LI KING OPARI			1999 1999 1999 1999 1999 1999 1999 199	21 1999 21 1999 21 1999 21 1999 22 1999 22 1999 22 1999 22 1999 8 1999 8 1999	5 21 1999 5 21 1999 5 21 1999 5 21 1999 5 22 1999 5 22 1999 5 22 1999 5 22 1999 6 8 1999 6 8 1999	3970 5 21 1999 4020 5 21 1999 3700 5 21 1999 3750 5 21 1999 4200 5 22 1999 3990 5 22 1999 3990 5 22 1999 3890 5 22 1999 4210 5 22 1999 4270 6 8 1999 4250 6 8 1999	WU 3970 5 21 1999 WU 4020 5 21 1999 WU 3700 5 21 1999 WU 3750 5 21 1999 WU 3850 5 22 1999 WU 3990 5 22 1999 WU 3990 5 22 1999 WR 3890 5 22 1999 WR 4210 5 23 1999 WU 4270 6 8 1999 WU 4250 6 8 1999	WU 3970 5 21 1999 WU 4020 5 21 1999 WU 3700 5 21 1999 WU 3850 5 21 1999 WU 4200 5 22 1999 WU 3990 5 22 1999 WU 3990 5 22 1999 WR 3890 5 22 1999 WR 3890 5 22 1999 WR 4210 5 23 1999 WU 4270 6 8 1999 WU 4250 6 8 1999 WU 4260 6 8 1999	WTPL WU 3970 5 21 1999 WTPL WU 4020 5 21 1999 WTPL WU 3750 5 21 1999 WTPL WU 3750 5 21 1999 WTPL WU 3850 5 22 1999 WTPL WU 3990 5 22 1999 NABA WR 4210 5 22 1999 NABA WU 4370 6 8 1999 NABA WU 4250 6 8 1999
	COPARI COPARI COPARI NCE LI NCE NCE NCE NCE NCE NCE NCE NCE NCE NCE NCE NCE			1999 1999 1999 1999 1999 1999 1999 199	21 1999 21 1999 21 1999 22 1999 22 1999 22 1999 22 1999 8 1999 8 1999	5 21 1999 5 21 1999 5 21 1999 5 22 1999 5 22 1999 5 22 1999 5 22 1999 6 8 1999 6 8 1999	4020 5 21 1999 3700 5 21 1999 3750 5 21 1999 3850 5 22 1999 4200 5 22 1999 3990 5 22 1999 3890 5 22 1999 4210 5 22 1999 4210 6 8 1999 4250 6 8 1999	WU 4020 5 21 1999 WR 3700 5 21 1999 WU 3750 5 21 1999 WU 3850 5 21 1999 WU 4200 5 22 1999 WU 3990 5 22 1999 WU 3990 5 22 1999 WR 3890 5 22 1999 WR 4210 5 23 1999 WU 4370 6 8 1999 WU 4250 6 8 1999	WR 3750 5 21 1999 WJ 3750 5 21 1999 WJ 3850 5 21 1999 WJ 3850 5 21 1999 WJ 3990 5 22 1999 WJ 3990 5 22 1999 WJ 3990 5 22 1999 WJ 3890 5 22 1999 WJ 3890 5 22 1999 WJ 3890 6 22 1999 WJ 4370 6 8 1999 WJ 4250 6 8 1999	WTPL WU 4020 5 21 1999 WTPL WR 3700 5 21 1999 WTPL WU 3750 5 21 1999 WTPL WU 3850 5 22 1999 WTPL WU 3990 5 22 1999 WTPL WU 3990 5 22 1999 WTPL WU 3990 5 22 1999 WTPL WR 3890 5 22 1999 NABA WR 4210 5 23 1999 NABA WU 4370 6 8 1999 NABA WU 4250 6 8 1999
	ACK R ACK R NCE LI NCE LI NCE LI LER'S BON S BON S BON S BON S UILK SN UILK SN			1999 1999 1999 1999 1999 1999 1999	21 1999 21 1999 22 1999 22 1999 22 1999 22 1999 22 1999 8 1999 8 1999	5 21 1999 5 21 1999 5 21 1999 5 22 1999 5 22 1999 5 22 1999 6 8 1999 6 8 1999	3700 5 21 1999 3750 5 21 1999 3850 5 21 1999 4200 5 22 1999 3990 5 22 1999 3990 5 22 1999 3890 5 22 1999 4210 5 22 1999 4370 6 8 1999 4250 6 8 1999	WR 3700 5 21 1999 WU 3750 5 21 1999 WU 3850 5 21 1999 WU 4200 5 22 1999 WU 3990 5 22 1999 WU 3990 5 22 1999 WR 3890 5 22 1999 WR 4210 5 23 1999 WU 4370 6 8 1999 WU 4250 6 8 1999	WU 3750 5 21 1999 WU 3750 5 21 1999 WU 3850 5 21 1999 WU 3990 5 22 1999 WU 3890 5 22 1999 WR 3890 5 22 1999 WR 4210 5 22 1999 WU 4370 6 8 1999 WU 4250 6 8 1999 WU 4250 6 8 1999	WTPL WR 3700 5 21 1999 WTPL WU 3750 5 21 1999 WTPL WU 3850 5 22 1999 WTPL WU 3990 5 22 1999 WTPL WU 3990 5 22 1999 WTPL WU 3990 5 22 1999 WTPL WR 3890 5 22 1999 NABA WR 4210 5 23 1999 NABA WU 4370 6 8 1999 NABA WU 4250 6 8 1999
	ACK R NCE LI NCE LI SER'S ER'S BON S BON S EART			1999 1999 1999 1999 1999 1999 1999	21 1999 21 1999 22 1999 22 1999 22 1999 23 1999 8 1999 8 1999	5 21 1999 5 21 1999 5 22 1999 5 22 1999 5 22 1999 5 22 1999 6 8 1999 6 8 1999	3750 5 21 1999 3850 5 21 1999 4200 5 22 1999 3990 5 22 1999 3990 5 22 1999 3890 5 22 1999 4210 5 22 1999 4370 6 8 1999 4250 6 8 1999	WU 3750 5 21 1999 WU 3850 5 21 1999 WU 4200 5 22 1999 WU 3990 5 22 1999 WU 3990 5 22 1999 WR 3890 5 22 1999 WR 4210 5 22 1999 WU 4370 6 8 1999 WU 4250 6 8 1999	WU 3750 5 21 1999 WU 3850 5 21 1999 WU 3850 5 22 1999 WU 3990 5 22 1999 WU 3990 5 22 1999 WR 3890 5 22 1999 WR 4210 5 23 1999 WU 4370 6 8 1999 WU 4250 6 8 1999 WU 4260 6 8 1999	WTPL WU 3750 5 21 1999 WTPL WU 3850 5 21 1999 NABA WU 4200 5 22 1999 WTPL WU 3990 5 22 1999 WTPL WU 3990 5 22 1999 WTPL WR 3890 5 22 1999 NABA WR 4210 5 23 1999 NABA WU 4370 6 8 1999 NABA WU 4250 6 8 1999
	ACK RACK RACK RACK REFERS BON SENTIN			1999 1999 1999 1999 1999 1999	21 1999 22 1999 22 1999 22 1999 22 1999 23 1999 8 1999 8 1999	5 21 1999 5 22 1999 5 22 1999 5 22 1999 5 22 1999 5 23 1999 6 8 1999 6 8 1999	3850 5 21 1999 4200 5 22 1999 3990 5 22 1999 3890 5 22 1999 3890 5 22 1999 4210 5 22 1999 4210 6 8 1999 4250 6 8 1999	WU 3850 5 21 1999 WU 4200 5 22 1999 WU 3990 5 22 1999 WU 3990 5 22 1999 WR 3890 5 22 1999 WR 4210 5 23 1999 WU 4370 6 8 1999 WU 4250 6 8 1999	WU 3850 5 21 1999 WU 4200 5 22 1999 WU 3990 5 22 1999 WU 3990 5 22 1999 WR 3890 5 22 1999 WR 4210 5 23 1999 WU 4370 6 8 1999 WU 4250 6 8 1999 WI 4770 6 8 1999	WTPL WU 3850 5 21 1999 NABA WU 4200 5 22 1999 WTPL WU 3990 5 22 1999 WTPL WU 3990 5 22 1999 WTPL WU 3890 5 22 1999 NABA WR 4210 5 23 1999 NABA WU 4370 6 8 1999 NABA WU 4250 6 8 1999
	ACK R ER'S ER'S BON S DX TUI EART UND S			1999 1999 1999 1999 1999 1999	22 1999 22 1999 22 1999 22 1999 23 1999 8 1999 8 1999	5 22 1999 5 22 1999 5 22 1999 5 22 1999 5 22 1999 6 8 1999 6 8 1999	4200 5 22 1999 3990 5 22 1999 3990 5 22 1999 3890 5 22 1999 4210 5 22 1999 4370 6 8 1999 4250 6 8 1999	WU 4200 5 22 1999 WU 3990 5 22 1999 WU 3990 5 22 1999 WU 3890 5 22 1999 WR 3890 5 22 1999 WW 4210 5 23 1999 WU 4370 6 8 1999 WU 4250 6 8 1999	WU 4200 5 22 1999 WU 3990 5 22 1999 WU 3990 5 22 1999 WU 3890 5 22 1999 WR 4210 5 23 1999 WU 4370 6 8 1999 WU 4250 6 8 1999 WI 4270 6 8 1999	NABA WU 4200 5 22 1999 WTPL WU 3990 5 22 1999 WTPL WU 3990 5 22 1999 WTPL WU 3890 5 22 1999 NABA WR 4210 5 23 1999 NABA WU 4250 6 8 1999 NABA WU 4250 6 8 1999
	ER'S ER'S BON S DX TUI EART EART			1999 1999 1999 1999 1999	22 1999 22 1999 22 1999 23 1999 8 1999 8 1999	5 22 1999 5 22 1999 5 22 1999 5 23 1999 6 8 1999 6 8 1999	3990 5 22 1999 3990 5 22 1999 3890 5 22 1999 4210 5 22 1999 4370 6 8 1999 4426 6 8 1999	WU 3990 5 22 1999 WU 3990 5 22 1999 WU 3890 5 22 1999 WR 4210 5 22 1999 WU 4370 6 8 1999 WU 4250 6 8 1999	WU 3990 5 22 1999 WU 3990 5 22 1999 WU 3890 5 22 1999 WR 4210 5 22 1999 WU 4370 6 8 1999 WU 4250 6 8 1999 WU 4270 6 8 1999	WTPL WU 3990 5 22 1999 WTPL WU 3990 5 22 1999 WTPL WU 3990 5 22 1999 WTPL WR 3890 5 22 1999 NABA WR 4210 5 23 1999 NABA WU 4370 6 8 1999 NABA WU 4250 6 8 1999
RACER	ER'S BON S DX TUI ILK SN EART			1999 1999 1999 1999	22 1999 22 1999 22 1999 23 1999 8 1999	5 22 1999 5 22 1999 5 22 1999 6 8 1999 6 8 1999	3990 5 22 1999 3990 5 22 1999 3890 5 22 1999 4210 5 23 1999 4370 6 8 1999 44250 6 8 1999	WU 3990 5 22 1999 WU 3990 5 22 1999 WR 3890 5 22 1999 WR 4210 5 23 1999 WU 4370 6 8 1999	WU 3990 5 22 1999 WU 3990 5 22 1999 WR 3890 5 22 1999 WR 4210 5 23 1999 WU 4370 6 8 1999 WU 4250 6 8 1999 WI 4170 6 8 1999	WTPL WU 3990 5 22 1999 WTPL WU 3990 5 22 1999 WTPL WR 3890 5 22 1999 NABA WR 4210 5 23 1999 NABA WU 4370 6 8 1999 NABA WU 4250 6 8 1999
FOWLER'S TOAD	BON S DX TUI ILK SN EART			1999 1999 1999 1999	22 1999 22 1999 23 1999 8 1999 8 1999	5 22 1999 5 22 1999 6 8 1999 6 8 1999	3990 5 22 1999 3890 5 22 1999 4210 5 23 1999 4370 6 8 1999 4250 6 8 1999	WU 3990 5 22 1999 WR 3890 5 22 1999 WR 4210 5 23 1999 WU 4370 6 8 1999 WU 4250 6 8 1999	WR 3890 5 22 1999 WR 4210 5 23 1999 WU 4370 6 8 1999 WU 4250 6 8 1999	WTPL WU 3990 5 22 1999 WTPL WR 3890 5 22 1999 NABA WR 4210 5 23 1999 NABA WU 4370 6 8 1999 NABA WU 4250 6 8 1999
FOWLER'S TOAD	BON S X TUI LK SN EART			1999 1999 1999	22 1999 23 1999 8 1999 8 1999	5 22 1999 5 23 1999 6 8 1999 6 8 1999	3890 5 22 1999 4210 5 23 1999 4370 6 8 1999 4250 6 8 1999	WR 3890 5 22 1999 WR 4210 5 23 1999 WU 4370 6 8 1999 WU 4250 6 8 1999	WR 3890 5 22 1999 WR 4210 5 23 1999 WU 4370 6 8 1999 WU 4250 6 8 1999 WI 4170 6 8 1999	WTPL WR 3890 5 22 1999 NABA WR 4210 5 23 1999 NABA WU 4370 6 8 1999 NABA WU 4250 6 8 1999
E. RIBBON SNAKE M	LK Sh LK Sh LA Sh JND S			1999 1999 1999	23 1999 8 1999 8 1999	5 23 1999 6 8 1999 6 8 1999	4210 5 23 1999 4370 6 8 1999 4250 6 8 1999	WR 4210 5 23 1999 WU 4370 6 8 1999 WU 4250 6 8 1999	WR 4210 5 23 1999 WU 4370 6 8 1999 WU 4250 6 8 1999 WII 4170 6 8 1999	NABA WR 4210 5 23 1999 NABA WU 4370 6 8 1999 NABA WU 4250 6 8 1999
URTLE M	EART UND S			1999	8 1999	6 8 1999 6 8 1999	4370 6 8 1999 4250 6 8 1999 44250 6 8 1999	WU 4370 6 8 1999 WU 4250 6 8 1999	WU 4250 6 8 1999 WU 4250 6 8 1999 WII 4170 6 8 1999	NABA WU 4370 6 8 1999 NABA WU 4250 6 8 1999
	EART UND S			1999	8 1999	6 8 1999	4250 6 8 1999	WU 4250 6 8 1999	WU 4250 6 8 1999 WI 4170 6 8 1999	NABA WU 4250 6 8 1999
SMOOTH EARTH SNAKE F	OND S		-				A470 G 9 1000		WII 4170 6 8 1999	NAPA WILL 1470 6 8 1999
SKINK	-			1999	8 1999	6 8 1999	41/0 0 0 1333	WU 4170 6 8 1999	10001 0 0 0 1100	CCCI O O OILE OM VOVI
N. WATER SNAKE M	TER S		1999 N. WA		1999	6 8 1999	3940 6 8 1999	. WU 3940 6 8 1999	3940 6 8 1999	. WU 3940 6 8 1999
E. BOX TURTLE	OX TU	,	,	1999	1999	6 8 1999	3920 6 8 1999	WU 3920 6 8 1999	3920 6 8 1999	WU 3920 6 8 1999
E. BOX TURTLE M	OX TO				1999	6 8 1999	3840 6 8 1999	- WU 3840 6 8 1999	3840 6 8 1999	- WU 3840 6 8 1999
E. BOX TURTLE F	DT XO				1999	6 8 1999	3760 6 8 1999	WU 3760 6 8 1999	3760 6 8 1999	WU 3760 6 8 1999
N. BLACK RACER	ACK R			1999	1999	6 8 1999	3710 6 8 1999	. WU 3710 6 8 1999	WU 3710 6 8 1999	. WU 3710 6 8 1999
Σ	E-LINE	S.E.	S.E.	1999 S.E.	1999 S.E.	6 8 1999 s.E.	3700 6 8 1999 S.E.	- AA 3700 6 8 1999 s.E.	3700 6 8 1999 S.E.	- AA 3700 6 8 1999 s.E.
E. BOX TURTLE M	DX TU			1999	1999	6 8 1999	3340 6 8 1999	- WX 3340 6 8 1999	WX 3340 6 8 1999	- WX 3340 6 8 1999
GROUND SKINK	S QND				1999	6 8 1999	3240 6 8 1999	WU 3240 6 8 1999	3240 6 8 1999	WU 3240 6 8 1999
THREE-TOED BOX TURTLE F	ED BC		1999 THREE-TO		1999	6 8 1999	2380 6 8 1999	ST 2380 6 8 1999	2380 6 8 1999	ST 2380 6 8 1999
THREE-TOED BOX TURTLE F	DED BC		1999 THREE-TC	1999	1999	6 8 1999	2160 6 8 1999	WU 2160 6 8 1999	2160 6 8 1999	FLAT WU 2160 6 8 1999
THREE-TOED BOX TURTLE F	ED BC		1999 THREE-TC		1999	6 8 1999	2120 6 8 1999	WC 2120 6 8 1999	2120 6 8 1999	NCMH WC 2120 6 8 1999
S. BLACK RACER	ACK R		1999 S. BL		1999	6 8 1999	1780 6 8 1999	WX 1780 6 8 1999	1780 6 8 1999	WX 1780 6 8 1999
GRAY RAT SNAKE	/ RAT			1999	1999	6 9 1999	0120 6 9 1999	- WR 0120 6 9 1999	0120 6 9 1999	- WR 0120 6 9 1999
AMERICAN TOAD F	RICAN		,		9 1999	6 9 1999	0270 6 9 1999	WX 0270 6 9 1999	WX 0270 6 9 1999	WX 0270 6 9 1999
SPECKLED KINGSNAKE F	ED KIN				9 1999	6 9 1999	0240 6 9 1999	. WX 0240 6 9 1999	WX 0240 6 9 1999	. WX 0240 6 9 1999
AMERICAN TOAD	RICAN		1999 AME	1999	1999	6 9 1999	0210 6 9 1999	WX 0210 6 9 1999	WX 0210 6 9 1999	WX 0210 6 9 1999

Notes																													SUNNING ON SHORE							g-
Length Weight Reproductive Condition																	GRAVID																			
Weight	7	575	380			413	126		58		58		573	404	2		268		187					2800		397	2			684	220		175	806		394
Length	312	132	914	4		1120	505		552		293		997	112	22		131		814					221		952	331			137	101		91	195		128
Sex	Σ	ш	Σ			Σ	Щ		Σ		ц		Σ	Ц			Н		Σ							Σ	Σ			Н	Σ		ч	Σ		Щ
Species	ROUGH GREEN SNAKE	THREE-TOED BOX TURTLE	N. BLACK RACER	S. LEOPARD FROG	E. FENCE LIZARD	GRAY RAT SNAKE	S. COPPERHEAD	ROUGH GREEN SNAKE	S. BLACK RACER	(2) E. FENCE LIZARD	W. COTTONMOUTH	(2) GREEN ANOLE	S. COPPERHEAD	THREE-TOED BOX TURTLE	AMERICAN TOAD	(4) AMERICAN TOAD	THREE-TOED BOX TURTLE	(2) BULLFROG	S. BLACK RACER	N. CRICKET FROG	S. LEOPARD FROG	(3) S. CRICKET FROG	S. BLACK RACER	RED-EARED SLIDER	S. BLACK RACER	SPECKLED KINGSNAKE	ROUGH GREEN SNAKE	S. COPPERHEAD	RED-EARED SLIDER	THREE-TOED BOX TURTLE	THREE-TOED BOX TURTLE	SPECKLED KINGSNAKE	THREE-TOED BOX TURTLE	RED-EARED SLIDER	GROUND SKINK	THREE-TOED BOX TURTLE
Year	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999
Day	6	10	10	10	10	11	11	11	11	11	11	11	11	11	11	11	12	12	12	12	12	12	12	13	13	13	13	14	14	14	14	14	14	14	14	4
Month	9	9	9	9	9	9	9	9	9	9	9	9	9		9	9	9	9	9	9	9	9	9	9	9	9	9	9		9	9	9		9	9	
Mile	0200	0230	0360	0180	0180	0440	0230	0830	0820	0280	0180	0180	0090	0630	0740	0740	1170	1210	1220	1240	1240	1220	1030	1190	1460	1450	1040	1740	1760	1900	1910	1940	1950	1980	2140	1890
Habitat	××	DW.	ΛM	۲	۲	N N	NW.	ΩM	ΩM	₹	₹	4	XM	××	WR	XR.	ST	ST	⊃×	ST	ST	ΝS	NW.	PR	PR	PR	ST	XX	SW	×	š	š	š	ΧX	ST	WX
Physio- graphic Region	MAPL	MAPL	LOHI	MAPL	MAPL	LOH	LOHI	LLPH	LLPH	MAPL	MAPL	MAPL	LOHI	LOHI	LLPH	LLPH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	JAPR	NCMH	NCMH	NCMH	JAPR	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	FLAT	NCMH
Eco- system Province	-	-	2	_	-	2	2	3	က	-	-	-	2	2	3	3	3	3	3	3	3	3	3	က	က	3	3	3	3	3	3	3	3	3	3	3
State	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS
Park	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR

Notes															BLACK RACE													SUNNING ON LOG	SUNNING ON LOG						SUNNING ON LOG	
Length Weight Reproductive Condition											·																		,				GRAVID			
Weight		360	488	41	17	351			37	277		34	228	407	106					43			425	9	25	29	6				382	375	2390	325		218
Length		982	131	362	46	122	-		498	111		307	885	1012	492					496			1040	182	504	420	304				1072	1011	242	121		830
Sex		ᄔ	ட	ட		Σ			Σ	ட		Σ	Σ	Σ	Σ					Σ			Σ	Σ	Σ	Σ	4				Σ	Σ	ч	Σ		Σ
Species	S. BLACK RACER	SPECKLED KINGSNAKE	THREE-TOED BOX TURTLE	S. COPPERHEAD	E. MUD TURTLE	THREE-TOED BOX TURTLE	S. COPPERHEAD	S. COPPERHEAD	CORN SNAKE	THREE-TOED BOX TURTLE	GRAY RAT SNAKE	MIDLAND WATER SNAKE	SPECKLED KINGSNAKE	GRAY RAT SNAKE	E. HOGNOSE SNAKE	MIDLAND WATER SNAKE	SPECKLED KINGSNAKE	N. BLACK RACER	E. MUD TURTLE	N. BLACK RACER	E. FENCE LIZARD	S. LEOPARD FROG	BLACK KINGSNAKE	N. WATERSNAKE	E. GARTER SNAKE	CORN SNAKE	E. RIBBON SNAKE	(2)RED-EARED SLIDER	BULLFOG	S. BLACK RACER	S. BLACK RACER	S. BLACK RACER	RED-EARED SLIDER	THREE-TOED BOX TURTLE	S. PAINTED TURTLE	S. BLACK RACER
Year	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	2000	2000	2000	2000	2000	2000	2000	2000	2000
Day	14	14	15	15	15	16	16	16	16	16	16	17	17	17	17	17	17	18	18	20	21	21	9	9	9	15	16	25			25				76	
Month	9	6	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	11	11	11	11	11	4	4	4	4	4	4	4	4	4
Mile Post	1830	1710	1970	1970	2040	2180	2310	2320	2390	2390	2530	2560	2720	2260	2490	2770	3050	2820	2800	3950	4300	4240	3400	3480	3640	0220	0470	0460	0460	0260	0000	0020	0210	0190	0180	0670
Habitat	ΧM	WC	ΧX	ΧM	SW	MX	NX.	MX		MX	ST			MN	MN			MU			D.M	ST	NM	ST		××	WR					N M	SW			×
Physio- graphic Region	NCMH	NCMH	NCMH	NCMH	NCMH	FLAT	BLPR	BLPR	POHI	POHI	BLPR	BLPR	BLPR	BLPR	BLPR	FLHI	FLHI	FLHI	FLHI	WTPL	NABA	NABA	WTPL	WTPL	WTPL	LLPH	LOHI	LOHI	LOHI	MAPL	MAPL	MAPL	MAPL	MAPL	MAPL	LLPH
Eco- system Province	3	3	က	3	က	3	3	3	က	3	3	3	3	3	3	က	3	3	3	4	4	4	4	4	4	3	2	2	2	-	1	1	1	-	-	3
State	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	Z	N.	N	AL	N	N N	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS
Park	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR

Notes				SUNNING ON LOG	SUNNING ON LOG				SUNNING ON BANK									SUNNING ON LOG	SUNNING ON LOG	SUNNING ON LOG					SUNNING ON LOG						VUL					
Length Weight Reproductive Condition									-																											
Weight	412	222				1495				134		141	8	272		83	128				9	272	9	7		262	247	`		179		353	58		503	161
Length	1071	105				238				91		469	40	903		581	453				322	603	297	342		98	103			66		149	89		167	186
Sex	Σ	Σ				ഥ						ட		ட			ட				Σ	J	Σ	Σ		щ	4			ட		Σ	Σ		Σ	Σ
Species	S. BLACK RACER	THREE-TOED BOX TURTLE	ROUGH GREEN SNAKE	MIDLAND WATER SNAKE	(3) RED-EARED SLIDER	RED-EARED SLIDER	S. BLACK RACER	SPECKLED KINGSNAKE	COMMON SNAPPING TURTLE	STINKPOT	THREE-TOED BOX TURTLE	W. COTTONMOUTH	SLIDER	SPECKLED KINGSNAKE	S. BLACK RACER	S. COPPERHEAD	SPECKLED KINGSNAKE	RED-EARED SLIDER	CHICKEN TURTLE	YELLOW-BELLIED SLIDER	ROUGH GREEN SNAKE	SPECKLED KINGSNAKE	ROUGH GREEN SNAKE	ROUGH GREEN SNAKE	RED-EARED SLIDER	THREE-TOED BOX TURTLE	THREE-TOED BOX TURTLE	E. MUD TURTLE	S. E. FIVE-LINED SKINK	E. MUD TURTLE	(3) S. E. FIVE-LINED SKINK	THREE-TOED BOX TURTLE	S. PAINTED TURTLE	S. PAINTED TURTLE	RED-EARED SLIDER	COMMON SNAPPING TURTLE
Year	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Day	30			30		1	2		2		2		2	2	2	2	2	3	3	3	3	2	က	3	3	4	4	4	4	4	4	4	4	4	4	4
Month	4	4	4	4	4	5	5	5	5	5	5	5	2	2	5	2	5	2	5	5	5	2	2	5	5	2	5	2	2	5	5	5	5	5	5	2
Mile I	0810	02/0	1190	1130	1130	1070	1410	1410	1440	1450	1460	1290	1250	1250	1260	1240	1080	1340	1340	1340	1280	1250	1170	1160	1060	1650	1650	1750	1700	1730	1700	1580	1550	1540	1530	1460
Habitat	××	MU	MX	ΓA	Y		ΧM	ΧM			PR	SW		XX	×	××	XX	ST		ST	×	××	WR	XX	SW	×		SW	WB	NW.	WB	WB	WB	WB	ΧM	AF
Physio- graphic Region	LLPH	LLPH	NCMH	JAPR	JAPR	JAPR	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	JAPR	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	JAPR	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH
Eco- system Province	3	3	3	3	3	ဗ	3	3	3	3	က	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	က	3	3	3	3	3	က	က	3
State	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS
Park	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR

Notes					INJURED		JUV.			HEMIPENIS ENLARGED				JUV.						JUV.					JUV							JUV				
Length Weight Reproductive Condition									,																											
Weight	15	303	399	173	153	201	22	147	23	293			388	40	407	276	92	163	206	92	103	152	108	173	92		9	354			278	123	287	131	149	258
Length	44	111	922	662	711	89	45	772	472	893			136	28	128	112	383	262	296	79	209	728	468	731	92		228	126			6/6	83	121	652	732	818
Sex		щ	ட	ш		ᄔ		Σ	Σ	Σ	Σ		Σ		Σ	Σ	щ	Σ	Σ		ഥ	Ŧ	Н	Σ			Σ	ட			Σ		ட	띠	Σ	Σ
Species	RED-EARED SLIDER	THREE-TOED BOX TURTLE	MUD SNAKE	MUD SNAKE	YELLOW-BELLIED WATER SNAKE	THREE-TOED BOX TURTLE	COMMON SNAPPING TURTLE	S. BLACK RACER	ROUGH GREEN SNAKE	SPECKLED KINGSNAKE	BROAD-HEADED SKINK	GROUND SKINK	THREE-TOED BOX TURTLE	E. MUD TURTLE	THREE-TOED BOX TURTLE	THREE-TOED BOX TURTLE	W. COTTONMOUTH	MUD SNAKE	DIAMOND-BACKED WATER SNAKE	THREE-TOED BOX TURTLE	YELLOW-BELLIED WATER SNAKE	YELLOW-BELLIED WATER SNAKE	2000 w. соттоимоитн	S. BLACK RACER	THREE-TOED BOX TURTLE	SPECKLED KINGSNAKE	RINGNECK SNAKE	E. BOX TURTLE	GROUND SKINK	S. BLACK RACER	GRAY RAT SNAKE	THREE-TOED BOX TURTLE	THREE-TOED BOX TURTLE		S. BLACK RACER	CORN SNAKE
Year	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Day	4	4	5	5	2	5	5	5	5	5	5	2	9	9	9	7	7	7	8	8	8	8	8	œ	6	6	6	6	6	6	6	6	6	9	=	=
Month	5	5	5	5	2	2	5	5	5	5	5	5	2	5	5	5	5	5	5	5	5	5	5	2	2	2	2	2	5	5	5	5	2	5	2	5
Mile Post	1480	1500	1560	1560	1560	1570	1780	1820	1800	1560	1530	1510	1940	1580	1470	1830	1740	1550	2020	2110	1150	2250	2300	2300	2350	2360	2370	2390	2420	2450	2250	2210	2160	2530	2500	2500
Habitat	ST	WX			PR	ΜX	XX	WC	ΜX	WB		MX	MN	SW							MU	MN	MU			XX			MN	XX	MX					×
Physio- graphic Region	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	FLAT	BLPR	BLPR	BLPR	POHI	POHI	POHI	POHI	POHI	POHI	BLPR	BLPR	FLAT	BLPR	BLPR	BLPR
Eco- system Province	3	3	3	3	က	က	က	က	က	က	3	က	က	3	3	3	3	3	3	3	3	3	3	3	က	3	ဘ	3	3	က	3	3	3	က	3	3
State	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS
Park	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR

Notes					GRAVID																-															
Length Weight Reproductive Condition											,												-													
Weight	583		102	101	1994		9	352	13		1435	189	258	186		289		62	19	156	21	115	20		472	276	170	253	213	331	184	218	132	83	92	1493
Length	195		722	682	227		281	942	305		128	106	116	107		114		7.1	89	91	44	84	382		151	109	122	112	109	127	802	963	775	782	809	229
Sex	F		Σ	Σ	F		Σ	Σ	F		F	F	Σ	ш		Σ				Ŧ		Σ	Σ		щ	ய	Σ	ட	ட	Σ	Ь	щ	Σ	щ	Σ	ш
Species	RED-EARED SLIDER	YELLOW-BELLIED WATER SNAKE	CORN SNAKE	S. BLACK RACER	RED-EARED SLIDER	MUD SNAKE	RO	N. BLACK RACER	CORN SNAKE	GROUND SKINK	RED-EARED SLIDER	E. BOX TURTLE	E. BOX TURTLE	E. BOX TURTLE	BLACK KINGSNAKE	E. BOX TURTLE	S. COPPERHEAD	E. BOX TURTLE	AMERICAN TOAD	E. BOX TURTLE	COMMON SNAPPING TURTLE	E. BOX TURTLE	CORN SNAKE	E. FENCE LIZARD	COMMON SNAPPING TURTLE	E. BOX TURTLE	BLACK KINGSNAKE	SPECKLED KINGSNAKE	S. BLACK RACER	S. BLACK RACER	CORN SNAKE	RED-EARED SLIDER				
Year	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Day	11	11	11			13	13	15	16	16	18			19	19	19			21				22			23	23	23	23			29				29
Month	5	5	5	2	5	2	5	5	5	5	5	5	5	2	5	5	5	5	5	5	2	5	5	2	2	5	5	5	5	2	5	5	5	5	5	5
Mile Post	2480	2300	2400	2630	2520	2820	2750	3170	3330	3070	3240	3210	3560	3660	3760	3830	3740	3880	3960	4150	4060	4270	4100	3980	4210	4270	4300	4300	4310	4410	3130	2840	2820	2810	2470	2300
Habitat	¥		MU	: XX	AA :	: nm	WU.) NM	PR (MU :	: nm) NM	MU	WR	: NM	MU	: nm		PR /	MU.	MU.			WU	MU 1	MU	nm M	, NW	XM	XM	WU :			×M
Physio- I graphic Region	POHI	BLPR	POHI	BLPR	BLPR	FLH	표교	TEVA	WTPL	FLH	TEVA	TEVA	WTPL	WTPL	WTPL	WTPL	WTPL	WTPL	WTPL	NABA	WTPL	NABA	WTPL	WTPL	NABA	NABA	NABA	NABA	NABA	NABA	FIH	FIE	FLHI	FLHI	POHI	BLPR
Eco- system Province	3	3	3	3	က	က	က	4	4	က	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	က	3	3	3	3
State	MS	MS	MS	MS	MS	MS	MS	ΑF	AL	MS	٩٢	AL	K	N.	N.	N	N	N.	N.	N	N.	N	Z	N	N	N N	N	N N	Z.	N.	AL.	MS	MS	MS	MS	MS
Park	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR

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Length Weight Reproductive Condition															,				-						-											
Weight	16	1112	176	102			79		149		186				264	341		388	112		188	99		2006	23		428	75	14	32		440		62	809	36
Length	464	188	393	378			735		122		614				816	135		121	437		962	089		226	466		1109	422	28	258		131		20	1222	440
Sex	Σ	F	Σ	ш			ч		Σ		ㅗ				Ŧ	M		F	Т			Σ		ч	Ч	ш	щ	щ		ட		Σ			ட்	Σ
Species	ROUGH GREEN SNAKE	RED-EARED SLIDER	S. BLACK RACER	W. COTTONMOUTH	COMMON SNAPPING TURTLE	(3) S. CRICKET FROG	S. BLACK RACER	MIDLAND WATER SNAKE	THREE-TOED BOX TURTLE	S. BLACK RACER	E. HOGNOSE SNAKE	DIAMOND-BACKED WATER SNAKE	S. BLACK RACER	SMOOTH SOFTSHELL TURTLE	SPECKLED KINGSNAKE	THREE-TOED BOX TURTLE	CORN SNAKE	THREE-TOED BOX TURTLE	W. COTTONMOUTH	DIAMOND-BACKED WATER SNAKE	RAINBOW SNAKE	S. BLACK RACER	YELLOW-BELLIED WATER SNAKE		S	E. FENCE LIZARD	GRAY RAT SNAKE	S. COPPERHEAD	BRONZE FROG	S. COPPERHEAD	CANEBRAKE RATTLESNAKE	E. BOX TURTLE	E. FENCE LIZARD	E. BOX TURTLE	BLACK RATSNAKE	E. GARTER SNAKE
Year	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Day	29	29					29				30				31	-	-	-	-	1	1			3		3	2		2		9	ω	6	11		31
Month	5	5	5	5	5	2	5	5	5	5	5	2	2	5	5	.9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Mile Post	2230	2150	1750	1630	1410	1420	1240	0820	0690	0320	0240	0370	0320	0210	0190	0330	0480	0620	0630	1100	1090	1190	1760	1760	1710	1620	1700	1590	1550	2250	2310	3510	2780	4360	4290	3980
Habitat	MC	XX	NM	MC	V٦	SW	MC	۲	ΠM	ΧM	DM	ΧM	ΠM	ST	××	WR	××	NW.	ΩM	F	WR	WR	MC	PR	ΧM	ΠM	××	ΩM	SW	M	××	NM	WC	WX	WX	WU
Physio- graphic Region	BLPR	FLAT	NCMH	NCMH	NCMH	NCMH	NCMH	LLPH	LLPH	LOHI	MAPL	LOHI	FOH	MAPL	MAPL	FOH	LOHI	FOH	LOHI	JAPR	JAPR	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	NCMH	BLPR	BLPR	WTPL	FIH	NABA	NABA	WTPL
Eco- system Province	က	3	က	3	3	3	3	3	3	2	-	2	2	-	-	2	2	2	2	က	3	3	က	က	က	က	က	3	3	3	3	4	33	4	4	4
State	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	MS	NT	MS	N	N	N
Park	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR

CMH CMH

NCMH NCMH NCMH

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Notes																																		,		
Sex Length Weight Reproductive	Condition																						-									-				
Weight			3	က	4	7	1.5	7	1.5	3	1.5	2	2	2	7	7	7	ε	7	3	2	1.5	2	2	2	2	3	2	1.5	2	2	1.5	1.5	2	2	2
Length			26	25	42	22	22	22	18	23	17	22	23	22	22	18	22	24	22	22	22	19	22	23	22	23	24	19	17	20	20	18	18	21	21	23
Sex																																				
Species			S. LE0PARD FROG	S. LEOPARD FROG	S. LEOPARD FROG	S. LEOPARD FROG	N. CRICKET FROG	S. CRICKET FROG																												
Trap	#		1	-	1	-	2	-	1	-				2				2			2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Year			1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999
hDay			18	18	18	18	18	7	7	7	8	8	8	8	8	8	8	8	8	8	8	8	8	14	14	14	14	14	14	14	14	14	14	14	14	14
Mile Month Day			9	9	9	9	9	7	11	17	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	7
	Post		3384	3384	3384	3384	3384	3384	3384	3384	3384	3384	3384	3384	3384	3384	3384	3384	3384	3384	3384	3384	3384	1209	1209	1209	1209	1209	1209	1209	1209	1209	1209	1209	1206	1206
Habitat			WR																																	
Physio-	graphic	Region	WTPL	MIPL	MTPL	TdLM	MTPL	WTPL	NCMH																											
Eco-	system	Province	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	က	3	3	3	က	3	3	3	3	3	3	3
State			YF	۱V	AL	AL	AL	AL	AL.	AL.	AL.	AL.	AL	AL	AL.	AL.	٩F	AL.	A _F	AL.	AL.	A.	A	MS												
Park			NATR																																	

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Drift Fence Database

Notes			-								CHORUS SINGING		JUV.							-					-								JUV.	
Sex Length WeightReproductive Condition											0					·						-												
Weigh	2	2	1.5	2	2	2	2	25	2	415		09		4	12	11	2.5	2.5	2.5	3	2.5	1.5	2	2	ဂ	2.5	2	8	2	23	15	12	7	
Length	20	18	18	19	22	22	19	140	42	135		85		44	74	74	21	21	20	23	21	13	18	18	22	16	19	69	42	72	73	108	53	
Sex								Σ		ட		ட		Σ	Σ	Σ													Σ	Ц	≥	ட		
Species	S. CRICKET FROG	FIVE-LINED SKINK	GROUND SKINK	THREE-TOED BOX TURTLE	BIRD-VOICED TREE FROG	BULLFROG	FIVE-LINED SKINK	GROUND SKINK	FIVE-LINED SKINK	FIVE-LINED SKINK	S. LEOPARD FROG	FIVE-LINED SKINK	GROUND SKINK	E. FENCE LIZARD	E. FENCE LIZARD	FIVE-LINED SKINK	FIVE-LINED SKINK	BULLFROG																
Trap #	L		2					1		2				2	1	1	1	1	1	1	1	1		2			2	1		2		7	-	2
/ Year	1999	1999	1999		1999				1999	2000	2000	2000	2000	2000	2000	2000							-			2000	2000	2000				7	7	
th Day	4	14	14	14	14	14	14	16	16	25	26	30	_	∞	11	11	14	14	14	14	14	14	14	14	14	14	14	22	22	30	30	30	8	8
Mon	2	7	11	11	11	11	17	11	11	4	7 4			5		5					3 5							2						
t Mile Post	1209	1209	1209	1209	1209	1209	1209	0155	0155	0237	0127	1175	170	220	2780	2780	309	3098	3098	3098	3098	3098	3098	3098	3098	3098	3098	3900	4185	0359	035	0359	0359	035
Habitat Mile Month Day Post	WR	PR	PR	PR	WR	WR	××	ΜX	MU	NM	ГА	Ŋ	ΓA	Υ	Ч	ΓA	Ч	ГА	Ρ	ΓA	Ч	WR	ΛM	WR	WR	WR	WR	WR						
Physio- graphic Region	NCMH	MAPL	MAPL	MAPL	MAPL	NCMH	NCMH	FLAT	FLHI	FLHI	FLHI	FLHI	FLHI	FLHI	FLHI	FLHI	FLHI	FLHI	FLHI	FLHI	FLHI	WTPL	NABA	IHOT	IHOT	IHOT	ПОП	IHOT						
Eco- system Province	3	က	3	3	3	3	က	-	1	1	1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	2	2	2	2	2
	MS	MS	MS	MS	MS	MS	MS	MS	MS	AL	N L	NL	MS	MS	MS	MS	MS																	
Park State	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR							

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Notes			JUV.					JUV.				-							JUV.		
Sex Length WeightReproductive	Condition																				
Weight			2	9	1012	8	4	3.5	17	20	14	0.5	19	2.5	1.5	1.5	61	2.5	7	14	8
Length			90	112	127	99	212	49	9/	73	63	29	299	45	38	42	87	21	25	02	89
Sex				Σ	ட	щ	Σ		ட	щ	Σ		Σ							ட	ட
Species			FIVE-LINED SKINK	FIVE-LINED SKINK	RED-EARED SLIDER	FIVE-LINED SKINK	BROAD-HEADED SKINK	FIVE-LINED SKINK	E. FENCE LIZARD	E. FENCE LIZARD	FIVE-LINED SKINK	SPRING PEEPER	BROAD-HEADED SKINK	GREEN FROG	GREEN FROG	GREEN FROG	BULLFROG	S. LEOPARD FROG	FIVE-LINED SKINK	E. FENCE LIZARD	FIVE-LINED SKINK
Trap	#		7	_	-	7	7	7	1	-	-	-	7	2	2	2	7	-	-	~	7
Year	·····		2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Day		_	30	1	1	9	9	ဖ	9	8	80	80	∞	8	8	8	8	8	80	∞	ω
Mont			2	ဖ	ဖ	9	9	9	ဖ	ဖ	9	9	9	9	9	9	9	9	9	9	9
Mile	Post		6050	0652	0652	2235	2261	2311	2393	3384	3384	3384	3384	3419	3419	3419	3419	3419	3433	3433	3433
Habitat			WR	WR	WR	PR	PR	AF	XX	WR	WR	WR	WR	WR	WR	WR	WR	WR	MU	MU	WU
Physio- Habitat Mile Month Day Year Trap	graphic	Region	IH01	EO.	HOT	BLPR	BLPR	BLPR	POHI	WTPL	WTPL	WTPL	WTPL	WTPL	WTPL	WTPL	WTPL	WTPL	NABA	NABA	NABA
Eco	system	Province	2	2	2	က	က	3	3	4	4	4	4	4	4	4	4	4	4	4	4
State			MS	MS	MS	MS	MS	MS	MS	A	A.	AL	AL	Z	Z	Z	Z	Z	Z	Z	Z
Park State			NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR	NATR